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STOCKTON-ON-TEES CORPORATION.

REPORT

OF THE

Medical Officer of Health

TO THE

Urban District Council

FOR THE YEAR 1925.

G. C. M. M'GONIGLE, M.D., B.S., B.Hy., D.P.H.,
Medical Officer of Health;
Medical Superintendent of Isolation Hospital;
School Medical Officer;
Stockton-on-Tees.

Stockton-on-Tees:
Coates, Hunter Ltd., Printers, Castle Works.

1926

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1926

Y OF HEAL

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Borough of Stockton-on-Tees.

URBAN DISTRICT COUNCIL.

His Worship the Mayor (Leonard Ropner, Esq., J.P.)

Alderman R. Bainbridge*
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,, G. H. Douthwaite*
,, R. Dysert*†
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,, W. Wake*
,, J. B. Walton†
,, T. Wilkinson†
,, J. E. Wilyman†

* Members of Health Committee. † Members of Maternity and Child Welfare Committee.

Medical Officer of Health and Superintendent of Isolation Hospitals:
G. C. M. M'Gonigle, M.D., M.B., B.HY., D.P.H.

Assistant Medical Officer of Health:
D. S. Macbean, M.B.

Matron of Isolation Hospitals:
Mrs. M. Donaldson.

Sanitary Staff:
Senior Sanitary Inspector—Mr. E. G. Power, A.R.S.I.

Sanitary Inspectors
Mr. John Kirby, M.R.S.I., M.I.S.E., Cert. R.S.I., Meat Cert. R.S.I., San. Sc. R.S.I.
Mr. Robert Wilson, Cert. San. In. Ex. Bd., Cert. R.S.I.
Miss Marion Jones, Cert. R.S.I.,

Tuberculosis Health Visitor—Mrs. A. E. Jones, Cert. R.S.I., H.V. & Sch. N., R.S.I.

Health Visitors
Miss L. Catchpole, Cert. C.M.B., H.V. & Sch. N., R.S.I.
Miss M. Harker, Trained Nurse, Cert. C.M.B., Cert. R.S.I.
Miss J. D. Kimpsford, Trained Nurse, Cert. C.M.B.
Mrs. C. Cameron, Trained Nurse, Cert. C.M.B.
Miss M. C. Parrott, H.V. Diploma, Ministry of Health Regs.

Superintendent Scavenger—Mr. Joseph Leng.

Inspector of Common Lodging Houses—Police Inspector Anderson,

Clerks—Mr. H. Kipling, Cert. R.S.I.
Mr. W. Baker.

Health Department,
11, Finkle Street,
Stockton-on-Tees.
June 9th, 1926.

To the Urban District Council of the Borough of Stockton-on-Tees.

Mr. Mayor and Gentlemen,

I have the honour to present my second annual report on the sanitary circumstances and vital statistics of the Urban District of Stockton-on-Tees.

The Report is a Survey Report and follows the lines laid down by the Ministry of Health for such reports.

The outstanding feature of the vital statistics for the five years just completed is a marked decline in the general death-rate—from 17.8 per 1000 of the population in the preceding quinquennium to 13.85—and in the infant mortality rate—from 110.6 per 1000 births to 93.8. These figures and the factors operative in their production are discussed in the body of the report.

The town of Stockton-on-Tees is passing through a period of great industrial depression and the standard of living of many of the inhabitants is at a low level. It is unfortunate that towns such as Stockton which, during periods of great distress, require large additions to their health and social services should, by reason of that distress, be least able to afford such expansion. It is a remarkable fact that the vital statistics have so materially improved despite the industrial depression, and it is reasonable to suppose that had conditions been better the improvement would have been even more pronounced.

During the past two years the Child Welfare Service has been very considerably expanded. The increased facilities now available have been very greatly appreciated by the mothers in the town.

Many additions are still required to meet the needs of the town from a health point of view; further expansion of the Maternity and Child Welfare Service, an Infants and Childrens Hospital, re-modelling of the Small-pox Hospital, extensions to the Fever Hospital, additional houses, a Public Abattoir, etc.

My thanks and appreciation are due for the help and courtesy of the Members of the various Committees concerned with the administration of the Health Department, who have endeavoured, so far as financial considerations would allow, to further and put into effect the various schemes for the welfare of the community which I have laid before them.

On January 23rd, 1926, the Health Department was removed from the two rooms which it had occupied in the Borough Hall to more commodious premises in Finkle Street.

The staffs of the various branches of the Health Department have given ungrudgingly of their best, and the support and help I have received from one and all have enabled a large amount of work to be carried out without friction or difficulty.

I have the honour to remain,
Mr. Mayor and Gentlemen,
Your obedient Servant,
G. C. M. McGONIGLE,
Medical Officer of Health.

OBITUARY

On March 8th, 1926,

Dr. Thomas Horne,

Consulting Medical Officer of Health
to the Borough.

Medical Officer of Health to the
Borough of Stockton

From - 1895
To - 1924

GENERAL ADMINISTRATION.

The amount of work which falls to the lot of the Health Department ever tends to increase as new and wider duties are imposed by legislation upon Local Authorities.

In my own case the amount of work which ought to be done is very great and it is with very great difficulty that I am able to accomplish it. The volume of routine work is so large that any disturbance in the routine results in something being left undone. Each morning the routine work of the office and the Fever Hospital leave but little time for inspectorial or other work, while the frequent calls upon my time by private practitioners to consult with them in doubtful or difficult cases of infectious disease impose a further curtailment of the small amount of time I am able to devote to organization. Four afternoons each week are given to Maternity and Child Welfare Centres.

When any unusual circumstances arise, such as the preparation of evidence for an Unhealthy Area Scheme, the timetable is hopelessly disorganised and in addition much work has to be done out of office hours.

The question of an Assistant Medical Officer is one which sooner or later will have to be considered. When this subject is under discussion it would be advisable to consider (conjointly with the Education Committee) whether the best interests of the town would not be met by a combination of the duties of Assistant School Medical Officer and Assistant Maternity and Child Welfare Medical Officer.

At present the Assistant School Medical Officer's duties are confined entirely to the School Medical Service. Co-ordination of the work of the two branches of child care could best be met by combining the duties so that two Assistants would each devote half time to school medical work and half to Maternity and Child Welfare and general work.

Changes in Local Administration.—The Ministry of Health's proposals in the reform of the Poor Law will, if carried into effect, alter materially the position of the Non-County Boroughs with regard to Health Administration.

It is proposed that the County Council shall in all cases definitely undertake for the whole administrative county:—

(a) A general oversight of the administration of all health services, whether existing or transferred and a duty of acting in the place of a borough or district council declared to be in default in any of these services, and,

(b) Complete responsibility for (i) the consideration of applications for relief and the grant of outdoor relief (or home assistance, including domiciliary medical relief) and (ii) all institutions transferred under the Reform Scheme and the uses to which those institutions are put.

The proposed financial provisions provide that transferred and existing health services are to be aided by a block grant, fixed from time to time for a term of years and replacing (a) the balance of the assigned revenue grants so far as they are allotted to poor relief and public health services or unspecified services, and (b) other present grants in aid of health services. The new grant to be distributed to county and county borough councils on a basis of population qualified by a factor representing low ability to pay.

Whilst it is realized that co-ordination of health services is needed and would be beneficial to small Local Authorities within the Administrative area of the County, it is felt that with a Borough of the size of Stockton-on-Tees (68,000 population) any change in the administration of health services should be in the direction of centralisation in the borough, and that the existing population presents a suitable unit for efficient administration, but is too large to be controlled from a distance.

Open Spaces.—Stockton is fairly well provided with parks and recreation grounds which are much appreciated by the public.

The only disadvantage which these open spaces present is that they are situated at some distance from certain parts of the town and as a result very young children are precluded from visiting them unless accompanied by an adult. In default of nearby playing spaces young children spend much of their time in the streets playing about in the gutters.

There are many vacant corner plots at the intersection of streets which would make excellent playing places for children if they were drained and enclosed by a light iron fence. Many of these corner lots have been vacant for years and there seems little likelihood of them being built upon in the near future. In their present state they are apt to present an ugly and neglected appearance. Surface water collects upon them and rubbish is often deposited on them, while nettles and weeds further disfigure the sites.

Very little expense would be incurred to convert these dreary wastes into small playing grounds admirably situated for the needs of the children in the nearby streets. It should not be necessary to purchase the sites; a small annual rental might be arranged so leaving the sites available for future building.

HEALTH PROPAGANDA.

The importance of teaching the public the value of a healthy regime of life and of showing how common errors of diet, etc, can be avoided, is fully realised.

It may be said without fear of contradiction that the health of the people depends to a very large degree upon the efforts made by the people themselves. Their mode of life and conduct are reflected in the welfare of themselves and their children.

It is to be regretted that no organised effort was made to celebrate Health Week in 1925 for, though the value of this national effort is realised, the necessary funds for the purpose were not available.

Less costly methods of health propaganda had therefore, to be adopted. These consisted of addresses given by myself to various organisations in the town, particularly to meetings of women held in connection with local places of religion. A variety of topics was dealt with but particular attention was given to the care of Infants and young children.

Circulars on such subjects as the prevention of measles, diarrhoea and other diseases, the care of milk, destruction of flies, etc, were distributed by the Health Visitors and through the medium of the elementary schools and the Child Welfare Centres.

By the courtesy of the Editor of the North Eastern Daily Gazette, (an evening paper published locally) to whose kindness I am much indebted, I was enabled to reach a large public by means of a series of articles on Health subjects. These articles were published weekly during the Winter months under the title of "Health Notes."

The subjects dealt with included:—

1. Whole meal Bread.
2. The Danger of Flies.
3. The Destruction of Flies.
4. Measles.
5. Tuberculosis.
6. Household Refuse.
7. Clean Milk (production).
8. Clean Milk (handling and distribution).
9. Cancer.
10. Health Resolutions.
11. Childrens' Clothing.
12. Childrens' Sleep.
13. The Work of the Child Welfare Service (Newly born infants).
14. do. do. (Infants).
15. do. do. (Young Children).
16. Diet.
17. The School Medical Service.
18. The Common Cold.
19. Teeth.
20. Small-pox.
21. Professor Mellanby's feeding experiments on Animals.

It is hoped to start another similar series of articles during the coming Autumn.

It is a source of regret to me that I am unable to devote more time to the important subject of Health Propaganda work, but, as set out in another section of this report, the multifarious duties which devolve upon the Medical Officer of Health render the expansion of this section of the work impossible unless some form of assistance is provided.

Natural and Social Conditions of the Area.

Area (in acres)—Land and Inland water, 5,465 statute acres.
Population—At Census 1921—64,126.
Estimated by Registrar General to middle of 1925—68,000

Physical Features and General Character of the Area.—Stockton on-Tees is an ancient town and borough in the County of Durham situated on the north bank of the Tees about nine miles distant from its mouth. The valley through which the Tees flows contiguous to

Stockton is bounded on the East and South-east by the lofty range of Cleveland Hills at a distance of fourteen miles or more from the site of the town. On the West and North-west there is a general ascent from the Tees estuary towards the high lands of Durham County.

The contour of the ground surface is a trifle undulating with a mean altitude of about 50 feet above ordnance datum.

Heights above Sea Level (in feet) in different localities.

Fairfield, The Avenue	84
Norton, Tramway Terminus	69
Hartburn, at Junction of Green's Lane and Darlington Road	58
Fever Hospital	58
Yarm Road (near Richard Hind School)	55
Bowesfield Lane (near Surgical Hospital)	50
Oxbridge Lane (near Cemetery)	48
Stockton High Street (near Parish Church)	45
Yarm Lane	40
Portrack Lane (at Dog Hill Farm)	36
Corporation Quay	15
Near Haverton Hill Road	8.5

Note—High Water at Spring Tide is 8.66 above ordnance datum.

Except for comparatively small portions in the Norton and Hartburn Wards, where the subsoil is a glacial bed of sand and gravel, the Borough is situated on a bed of diluvial clay of great thickness, overlying a stratum of sandstone.

Number of Inhabited Houses (1921) ...	13,071
Number of Families or Separate Occupiers (1921)	13,865

Rateable Value :—£310,576.

Sum represented by a Penny Rate :—£1,043.

Social Conditions.—At the Census of 1921 there were 27,036 occupied persons over 12 years of age in the Borough. Of this number 21.589 were males and 5,447 were females The Chief Occupations followed by the males at this time were, in order of priority :—

Metal workers.
Transport workers. (including railway and road)
Commercial and financial occupations.
Proprietors of dealing businesses.

Commercial travellers, shop assistants, canvassers, insurance officials, agents, etc.

Workers in wood and furniture.

Clerks, draughtsmen, typists, etc.

Builders, bricklayers, etc.

Nearly 50 % of the occupied women is employed in personal services, such as domestic servants, lodging house keepers, charwomen, innkeepers and barmaids. A large proportion of the remainder is employed in commercial and financial occupations, which include shop assistants, and in dressmaking.

The industrial life of the Borough during the past five years has been very depressed. A very large proportion of the male workers is normally employed in the shipyards and engineering shops and for some years these men have, for the most part, been practically idle.

The average number of men in receipt of unemployment insurance benefit and the amount paid in benefit for each of the past four years is shown below :—

Year	No. of Men on Register	Amount paid in Benefit
1921	Not available	Not available
1922	6,930	£191,527
1923	5,062	£157,578
1924	3,792	£130,130
1925	5,287	£209,120

The approximate average weekly number of cases on the out-relief list for the Parish of Stockton during the period 1921-1925 (inclusive), and the amount of out-relief granted in each year is shown below :—

Year	No. of Cases	Amount £
1921	1,290	41,242
1922	2,775	100,992
1923	2,128	72,983
1924	1,193	41,985
1925	1,250	40,871

These figures indicate the low ebb to which industry has fallen in this Borough.

The housing conditions of a large proportion of the population leaves much to be desired and overcrowding is still prevalent. In a survey of the town taken during 1925 it was ascertained that there were 1,756 houses occupied by more than one family, 337 of which were overcrowded, and 617 houses occupied by one family were overcrowded. 597 houses in the Borough are included in areas scheduled to be dealt with as unhealthy areas.

During the last four years the average number of unemployed has been approximately 5000. (The figure for 1921 is not available).

It is a matter of considerable interest that despite this large amount of unemployment with its, presumably, lowered standard of living, the vital statistics for the Borough have never been so satisfactory. The subject is considered in more detail under the heading of dietetics.

VITAL STATISTICS.

SUMMARY.

Births.—

	No.	Males	Females	Rate	Rate last year
Legitimate ...	1529 ...	776 ...	753 ...	22·49 ...	22·58
Illegitimate ...	59 ...	24 ...	35 ...	0·86 ...	0·77
Total ...	1588 ...	800 ...	788 ...	23·35 ...	23·35

Deaths.—

Total	Males	Females	Rate	Rate last year
978	528	450	14·38	14·52

Number of women dying in, or in consequence of Childbirth :—

From Sepsis ...	1	4	Rate 2·5 per 1000 births
From other causes ...	3		

Infantile Mortality.—

	No. of deaths		Rate per 1000 births	
	1925	1924	1925	1924
Legitimate ...	140	165	88	104
Illegitimate ...	6	11	4	7
Total	146	176	92	111

	1925	1924
Deaths from Measles	37	4
Deaths from Whooping Cough (all ages) ...	2	48
Deaths from Diarrhoea (under 2 years) ...	20	22

BIRTH-RATE.

The year 1925 showed but little change in the birth-rate as compared with 1924.

It is not easy to determine definitely what are the factors which are operating as causes in the fluctuations in the birth-rate during recent years

The following graph is of interest in that it shows that whatever factors are operating, their influence is general throughout the country. It will be seen that in the three five-year periods 1901-5, 1906-11, and 1911-15, there was a general decline in the birth-rate. Taking the country as a whole this decline was apparently proceeding at a fairly uniform rate. In the administrative County of Durham the decline was much greater than in the Country, while in Stockton the rate of decrease was much slower.

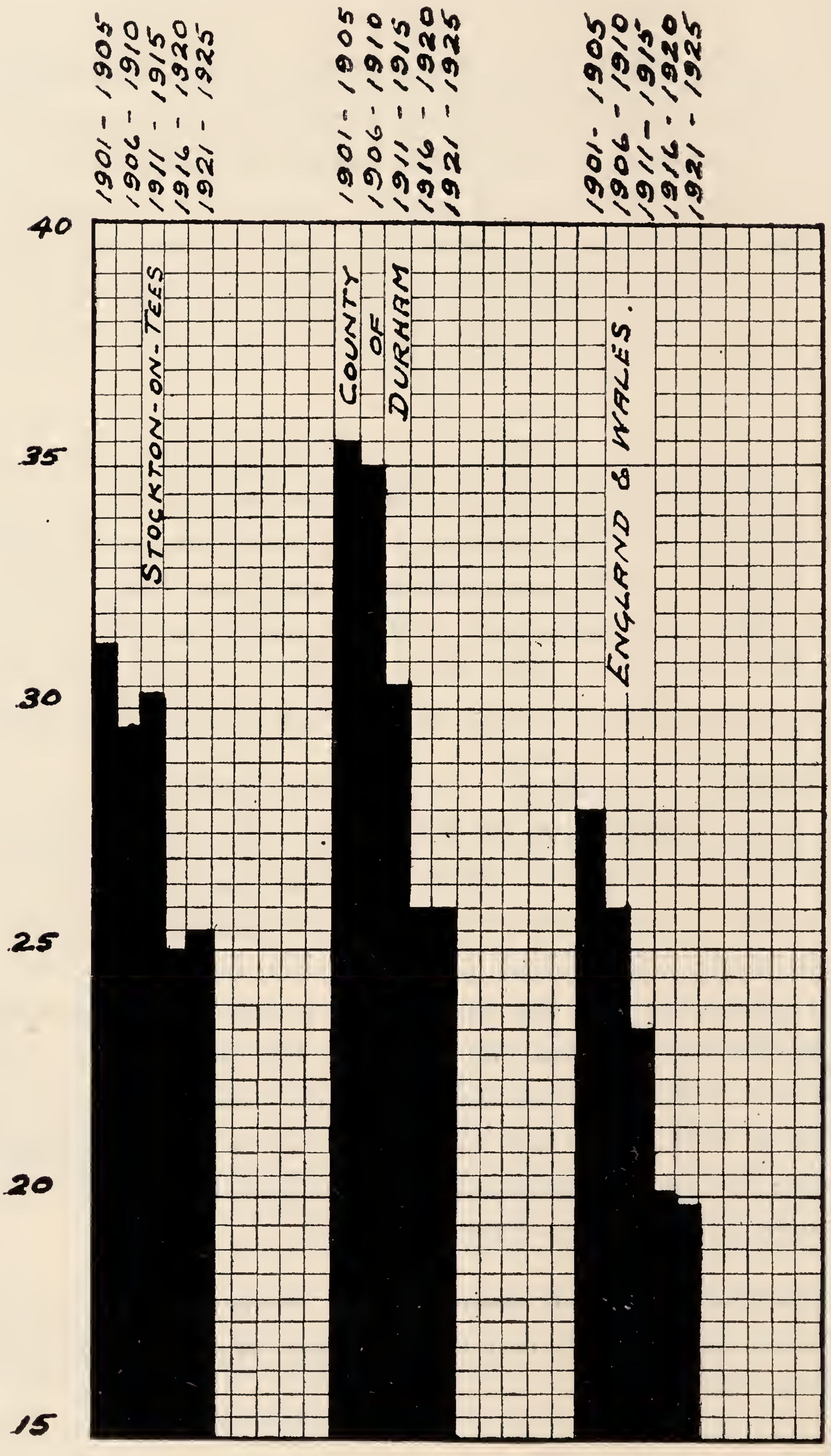
The five-year period (1916-1920) was exceptional in that during the first three years of it the War had called to the colours a large proportion of the potential fathers, while in the last two years most of these men had been demobilised. During the first three years, therefore, of this period, the birth-rate was exceptionally low. There was a small increase in 1919 and a large one in 1920. This high birth-rate was continued in 1921 and since that year has declined,

It is worthy of note that during 1922, 23, 24 and 25, there has been but little fluctuation in the birth-rate. What change there has been has been downwards but it would appear that we have now reached a stage of comparative equilibrium with but a slight tendency downwards. Individual years provide insufficient data on which to generalise but the last two five-year periods present an interesting feature, viz., that the birth-rate has become approximately steady at a figure considerably below that which pertained in the years prior to 1915. This new rate is approximately 20 for England and Wales, 26 for the administrative County of Durham and 25 for the Borough of Stockton-on-Tees.

A comparative statement showing the Birth-rates in Stockton-on Tees, the County of Durham, and England and Wales, for the past five years, is given below:—

Year	Stockton-on-Tees	County of Durham	England & Wales
1921	29·2	29·7	22.4
1922	25·8	25·8	20·4
1923	24·9	25·6	19·7
1924	23·3	25·6	18·8
1925	23·3	23·9	18·3

BIRTH RATES IN FIVE YEAR PERIODS



DEATH-RATE.

During 1925 the general mortality rate was 14.38 per 1,000 of the population which is a slight decrease on that recorded for the year 1924, viz., 14.5.

Table No. 1 shows the principal causes of death in each of the past five years.

TABLE No. 1.

Principal causes of Death during the five years 1921—1925.

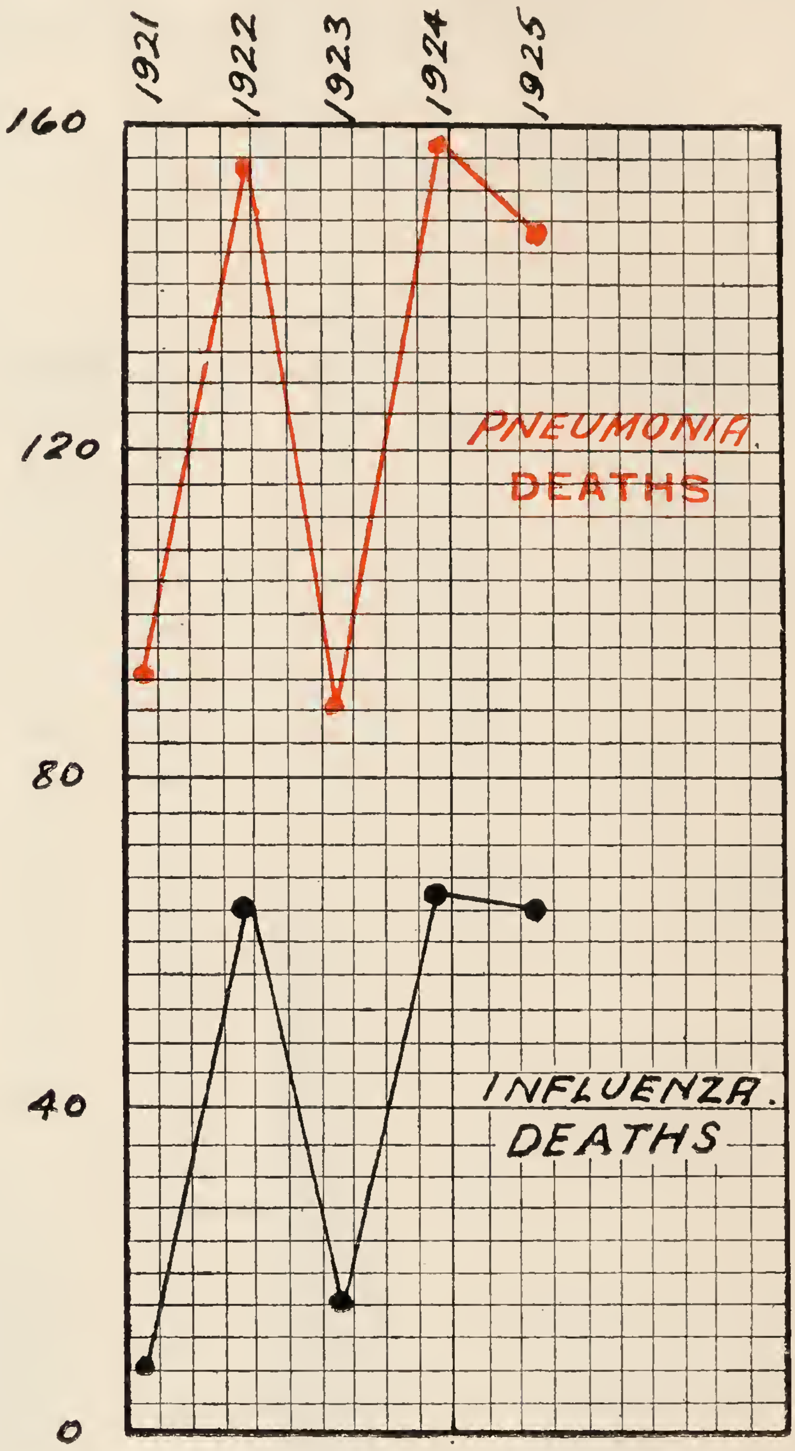
	1921	1922	1923	1924	1925	Total
Pneumonia	93	154	87	157	136	627
Heart Disease	73	98	82	91	118	462
Tuberculosis (all forms) ...	90	90	79	87	83	429
Bronchitis	71	89	38	89	69	356
Cancer	54	77	61	69	66	327
Congenital Debility	71	63	51	42	58	285
Cerebral Hæmorrage ...	54	52	42	47	50	245
Influenza	8	64	16	65	64	217
Diarrhœa (under 2 years) ...	35	24	16	22	20	117
Violence	34	20	20	22	32	128
Measles	24	—	56	4	37	121
Arterio Sclerosis	13	11	27	28	20	99
Whooping Cough	4	37	6	48	2	97
TOTALS	624	779	581	771	755	3510

Pneumonia and Bronchitis have again taken a heavy toll of lives; the actual number of deaths in 1925 from pneumonia being 136 and from Bronchitis 69, compared with 157 and 89 respectively in 1924. These figures show a decrease of 21 and 20 respectively but despite this decrease these two diseases remain among the most fatal of our prevalent diseases. One in every 4.7 deaths during the year has been due to one or other of these two diseases. The provision of hospital accommodation for the treatment of these two conditions would save some, at least, of these lives as the home conditions of many of those who contract these complaints are unsuitable for their treatment.

The number of deaths from influenza was 64 which is one less than in 1924.

The number of fatal cases of pneumonia has during the last five years borne a close relationship to the number of fatal cases of influenza as shown in the following graph:

TABLE SHOWING THAT YEARS OF PREVALENCE OF INFLUENZA ARE ALSO YEARS OF PREVALENCE OF PNEUMONIA



Deaths from tuberculosis show a slight decrease on the figure of 1924.

For some years the deaths attributable to cancer have been increasing but this year shows a slight decrease, from 69 in 1924 to 66 this year.

There has been an increase in the number of cases of heart disease which have terminated fatally.

Thirty-seven deaths were due to measles in 1925. The tendency of this infectious disease to recur at two years intervals is well known and has been particularly well marked during the past five years in Stockton, as has a similar tendency in Whooping cough. It is fortunate that these two diseases have not occurred concurrently in the town as when this happens the effect upon child life is additionally serious. Hospital accommodation for children suffering from severe and complicated measles and whooping cough is greatly needed.

It is satisfactory to note that the death rate from diarrhoea under two years of age has been halved, and it is confidently anticipated that this reduction will be continued as the number of privy middens in the town is reduced.

The great reduction shown in the death-rate from tuberculosis is a feature of congratulation. The vigorous action which is being taken at present to eliminate cows suffering from tuberculosis from dairy herds should in a year or two result in a further marked decline in the mortality from non-pulmonary tuberculosis.

But little impression has been made upon the death-rate from respiratory diseases (other than pulmonary tuberculosis), Bronchitis, broncho-pneumonia and pneumonia, constitute a group of diseases which annually take a heavy toll from our population. The first two diseases in this group are particularly fatal to children, and their prevention is receiving attention from the Child Welfare Department. It is remarkable how many infants suffering from ill feeding and vitamin deficiency die from bronchial troubles and how free from bronchitis and catarrh are those children who are suitably fed. This clinical experiment is in accord with the experimental work of Professor Mellanby on animals.

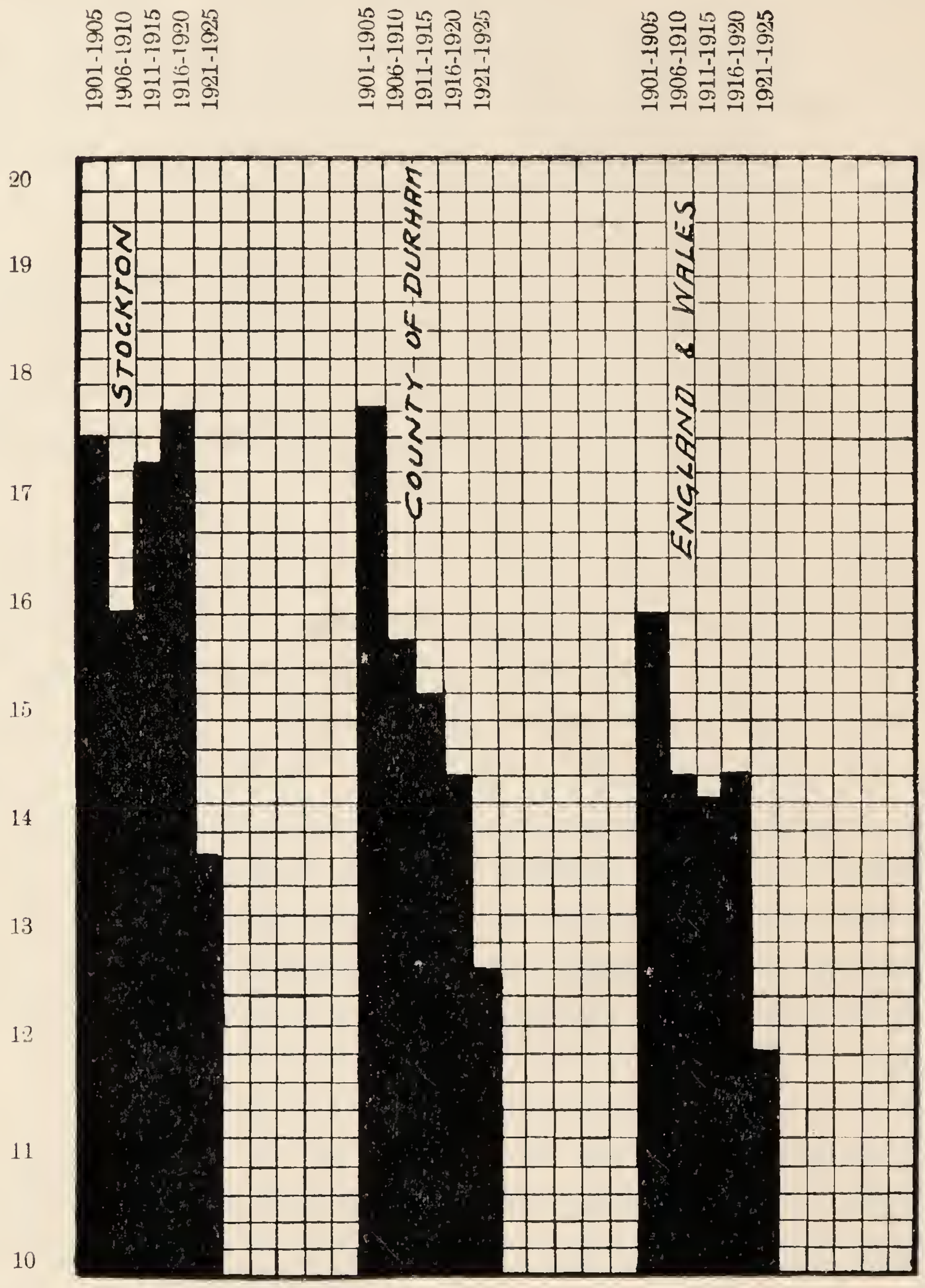
Comparatively little can be learned as to the tendancy of vital statistics from a consideration of any one individual year as compared with another, but study of the rates in successive quinquennia does give definite information as to the movements of these rates.

The five years period just completed is remarkable in that a marked decline in the general death-rate has been registered.

This decline is general throughout, and in no other five year period has such a low rate been attained.

The decline in the death-rate in five-year periods is shown graphically in the accompanying chart.

DEATH RATE IN 5 YEAR PERIODS.



A comparative statement showing the Death-rates in Stockton-on-Tees, the County of Durham, and England and Wales, for the past five years, is given below:—

Year	Stockton-on-Tees	County of Durham	England & Wales
1921	12·9	13·3	12·1
1922	15·4	13.1	12·8
1923	11·9	11.9	11·6
1924	14·5	12·5	12·2
1925	14·4	12·6	12 2

Infantile Mortality.—There has been a welcome fall in the infantile mortality rate from 111 per 1,000 births to 92 per thousand.

The death-rate among illegitimate infants has been 101.7 per 1,000 and among legitimate babies 91.5.

The subject of infantile mortality is considered fully under the section dealing with Maternity and Child Welfare work.

The Death-rate among Illegitimate Children.—One of the most gratifying results of the Maternity and Child Welfare work during the year has been a marked decline in the death-rate of illegitimate babies.

Illegitimate babies are handicapped from birth in that provision and arrangements for their care and nurture are usually defective. The Health Visitors have received instructions to pay particular attention to all illegitimate babies and to visit them more frequently than the babies of married women.

The result of this particular care and attention constitute a striking testimonial to the devotion to duty of the Health Visitors.

There is usually a very great disproportion between the infantile death-rates of legitimate and illegitimate children. The infantile death-rate of illegitimate children is frequently twice that of legitimate.

During 1925 there were born in Stockton 59 illegitimate children and of this number six died before reaching one year of age. This is equal to a rate of 101 per 1,000 illegitimate births which compares very favourably with the rate for legitimate babies, which was 91 during the year under review.

The following statement shows comparative figures for the past five years.

Year	Infantile Mortality per 1000 legitimate births	Infantile Mortality per 1000 illegitimate births	Ratio of Mortality rates among legitimate and illegitimate infants
1921	90	132	1 to 1·46
1922	100	156	1 to 1·50
1923	73	127	1 to 1·74
1924	104	211	1 to 2·10
1925	91	101	1 to 1·12

A consideration of the individual deaths shows that one died two hours after birth, one within two days and one in three days, all from congenital debility or prematurity.

One baby died on its 16th day and one on the 21st day, leaving only one which died at more than one month.

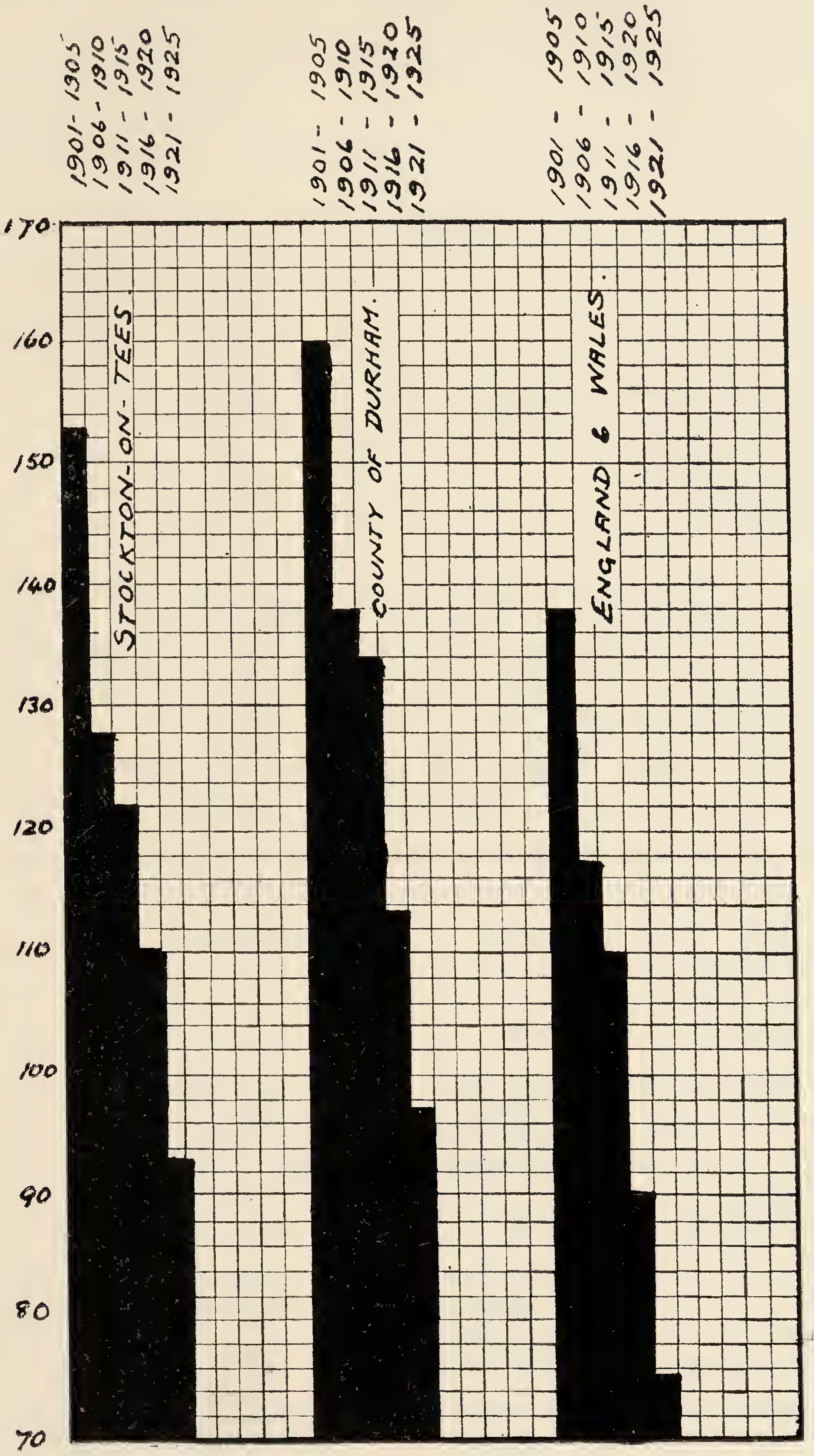
In other words, 54 illegitimate babies lived longer than one month and of these 54 only one died.

The home conditions of this particular child were very unsatisfactory, the mother having had several illegitimate children, all of whom have died.

Many of the illegitimate children are brought regularly to the Child Welfare Centres by their mothers, and by means of help and encouragement, are as well cared for as most legitimate children.

A comparison of the Infantile Mortality Rates in England and Wales, the County of Durham and Stockton-on-Tees during the last 5 five-yearly periods is given in the following graph.

INFANTILE MORTALITY RATES IN FIVE YEAR PERIODS.



COMPARISON OF CERTAIN VITAL STATISTICS FOR THE LAST THREE QUINQUENNIA.

As has been pointed out elsewhere in this report, a comparison of vital statistics of single years is of little value and may even be misleading, for the fluctuations of individual years are considerable. The possible inaccuracies are reduced to a minimum, if, instead of comparing the rates in individual years, the average for five year periods are considered. A consideration of the statistics of successive five year periods gives an insight into the movements of the rates.

The figures in Table No. 2 represent the average rates in each of the three five-year periods since 1911.

TABLE No. 2.

	1911-15	1916-20	1921-25	% Decrease on 1911-15 period
Birth-rate per 1000 population	30·03	25·06	25·32	16
Death-rate ,, ,,	17·19	17·80	13·84	20
Infantile Death-rate (per 1000 births)	122	110	94	23
Diarrhoea (under 2 years) per 1000 pop.	0·73	0·55	0·34	54
Tuberculosis (all forms)	2·03	1·87	1·20	41
Tuberculosis (pulmonary)	1·28	1·30	0·82	36
Respiratory diseases	3·29	3·72	3·06	7
Zymotic diseases	2·03	1·58	1·08	46

The amount of Poor Law Relief granted during 1925 was £41,059-9-9. This includes both money and kind and medical extras. The Poor Law Hospital has 155 beds and, on an average, 100 of these are occupied each day. The Poor-law District Medical Officers do a considerable amount of home visiting.

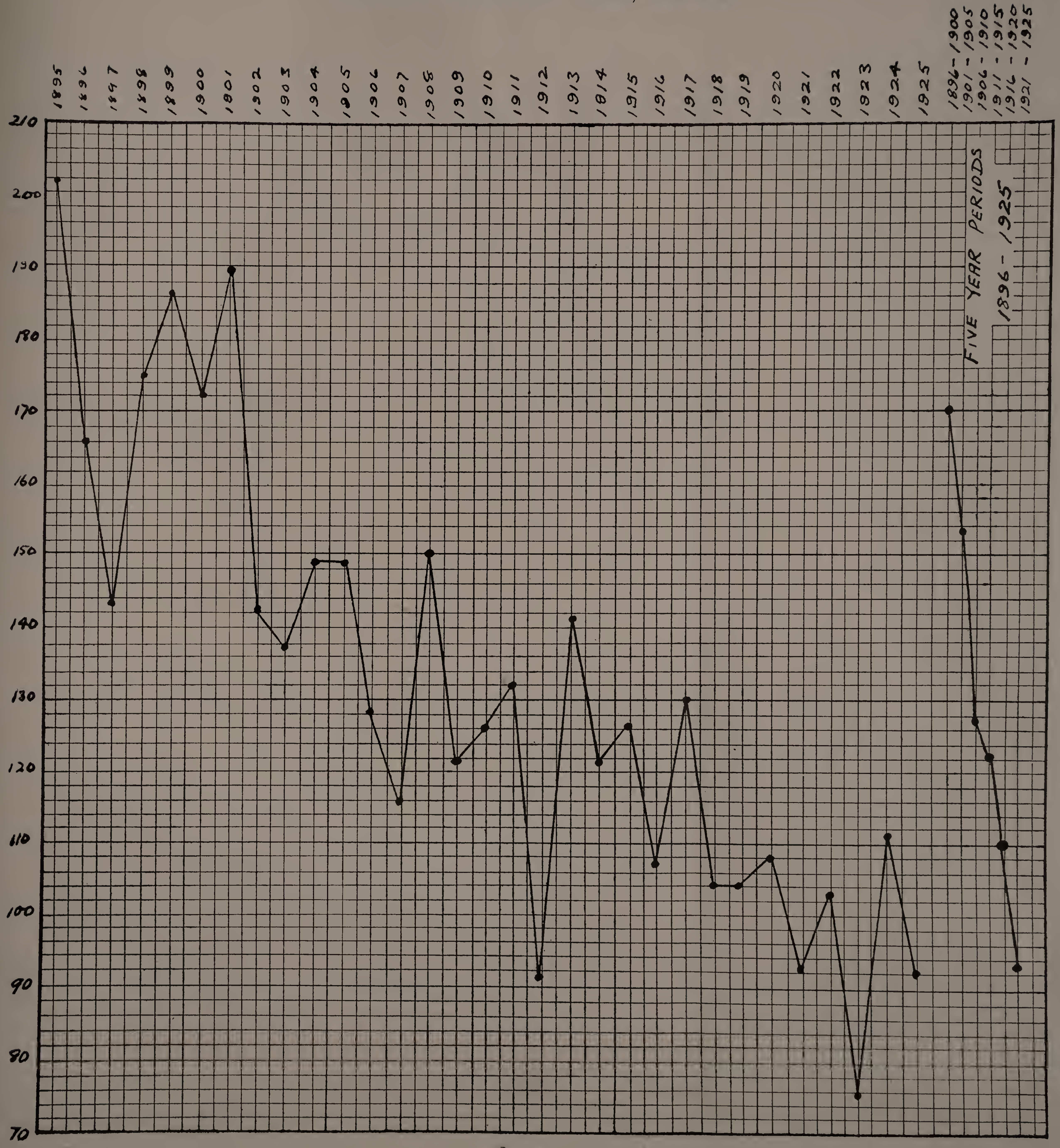
GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Hospitals provided or subsidised by the Local Authority.

Name	Situation	Accommodation	By whom provided
(1) Tuberculosis ..	None	......	......
*(2) Maternity ...	The Robson Maternity Home, Bowesfield Lane within the District	An ante-natal examination room A lying-in room and 12 beds	Wholly supported by the Council (Page 95)
*(3) Children's Hospital	None	.....	(Page 95)
*(4) Fever	Stockton-on-Tees Fever Hospital, Durham Road within the District	51 beds (nominal) 67 ,, (actual)	Wholly supported by the Council (Page 72)
*(5) Small Pox .	Stockton Small Pox Hospital, Summerville not within the District	24 beds and 10 beds for convalescent patients	Wholly supported by the Council (Page 73)

* For further information see appropriate sections of the Report, on pages mentioned in right-hand column.

INFANTILE MORTALITY RATES, 1895—1925



Hospitals available for the Area.—The Stockton and Thornaby Surgical Hospital which is available for the area, is situated in Bowesfield Lane, within the Borough. At present the accommodation is 78 beds, but considerable extensions are now well on the way towards completion. The hospital is supported by voluntary contributions.

The Poor Law Infirmary is situated within the Borough at Portrack Lane. It has 155 beds.

There is no institutional provision for unmarried mothers, or illegitimate infants, in the district.

Ambulance Facilities.—(a) For infectious cases the Council possesses a motor ambulance which is housed at the Fever Hospital. A nurse invariably accompanies patients on their removal to hospital.

(b) A special horse ambulance is reserved for small-pox cases.

(c) For non-infectious and accident cases the Council has a motor ambulance loaned to them under an agreement by the St. John Ambulance Association and the British Red Cross. It is housed at the Fire Station.

CLINICS AND TREATMENT CENTRES.

Name	Situation	Accommodation	By whom provided
No. 1 Maternity and Child Welfare Centre	3, Oxford Terrace	Two waiting rooms Dressing room Consulting room Office Store room Accommodation for Perambulators Attendance, 2-0 to 5 o'clock every Wednesday	Stockton-on-Tees Urban District Council
No. 2 Maternity and Child Welfare Centre	Congregational Church Sunday School Rooms, Park Road	Waiting and Dressing room Consulting room Attendance, 2-0 to 5 o'clock every Tuesday	The Urban District Council
No. 3 Maternity and Child Welfare Centre	Primitive Methodist Sunday School, Paradise Row.	Waiting and Dressing room Consulting room Attendance, 2-0 to 5 o'clock every Monday	The Urban District Council

CLINICS AND TREATMENT CENTRES (Continued).

Name	Situation	Accommodation	By whom provided
No. 4 Maternity and Child Welfare Centre	The Green, Norton-on-Tees	Waiting and Dressing room Consulting room Attendance. 2-0 to 5-0 o'clock every Thursday	do.
Ante-Natal Centre ...	3, Oxford Terrace	This Clinic is held at No. 1 M. & C. W. Centre. Attendance, 2-0 to 5-0 o'clock every Friday	do.
Day Nursery	None	......	... ..
School Clinic... ...	7, Victoria Ter.	Waiting room Surgical dressing room Consulting room with adjoining room for the examination of chests, etc. Refraction room Vision-testing room Accommodation for resident caretaker Attendance, 9 a.m. daily for dressings. Monday, Wednesday, and Friday afternoons for minor ailments. Refraction work Thursday afternoons, or by ap-appointment	Stockton-on-Tees Education Authority
Tuberculosis Dispensary	Bowesfield Lane	Waiting room Consulting room Attendance, Wednesdays and Thursdays 10 to 4	Durham County Council
*Venereal Diseases Clinic	Stockton & Thornaby Hospital, Bowesfield Lane	Waiting room Consulting room Injection room Irrigation room Attendance, Tuesdays 3 to 5 o'clock for women ; Thursdays 6-30 to 9-30 for men	Durham County Council

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* During alterations at the Stockton and Thornaby Hospital this Clinic is held at the Tuberculosis Dispensary.

Public Health Officers of the Local Authority.

*G. C. M. M'GONIGLE, M.D., B.S., B.Hy., D.P.H., Medical Officer of Health, School Medical Officer, and Medical Superintendent of the Isolation Hospitals	Whole time
D. S. MACBEAN, M.B., Assistant Medical Officer of Health ...	Part time
*EDWARD G. POWER. A.R.S.I., Senior Sanitary Inspector ...	Whole time
*JOHN KIRBY, M.R.S.I., M.I.S.E., Cert. R.S.I., Cert. San. Ins. Ex: Jt. Bd., Meat & Food Cert. R.S.I., San. Sc. R.S.I., Sanitary Inspector	do.
*ROBERT WILSON, Cert. San. Insp. Ex. Board, Cert. R.S.I., Sanitary Inspector	do.
MARION JONES, Cert, R.S.I., Sanitary Inspector	do.
†MRS. A. E. JONES, Cert. R.S.I., H.V. & Sch. N., R.S.I., Tuberculosis Health Visitor...	do.
‡MISS L. CATCHPOLE, Cert. C.M.B, H.V. & Sch. N., R.S.I., Health Visitor	do.
‡MISS M. HARKER, General Trained, C.M.B. Cert., Cert. R.S.I., Health Visitor	do.
‡MISS J. D. KIMPSFORD, General Trained, C.M.B. Cert., Health Visitor	do.
‡MRS. C. CAMERON, General Trained, C.M.B. Cert., Health Visitor	do.
‡MISS M. C. PARROTT, Health Visitor's Diploma under Ministry of Health's Regs., Health Visitor	do.
‡MRS. M. E. DEACON, Health Visitor (temporary) for six months during absence of Miss Parrott on study leave ...	do.
HARRY KIPLING, Cert. R.S.I., Clerk	do.
WALTER BAKER, Clerk	do.

*One-half of the salaries of these Officers is paid by the Ministry of Health.

†One-half of the salary of this Officer is paid by the County Council.

‡The Ministry of Health Grant in respect of Maternity and Child Welfare includes one-half the salaries of these Officers.

Professional Nursing in the Home.—(a) The Stockton and Thornaby District Nursing Association makes provision for general home nursing without charge, whenever requested by a medical practitioner, or by or on behalf of a sick person. The nurses attend at the homes of the sick once or twice, or oftener, a day, according to the requirements of the cases.

For Infectious Cases.—(b) The Local Health Authority under an Agreement with the Nursing Association, make provision for the home nursing of cases of Measles, Whooping Cough, Puerperal Fever, Epidemic Diarrhoea, and Ophthalmia Neonatorum. For these services the Council pay the Association a sum of £160 per annum.

The scheme of co-ordination with the Nursing Association so far as concerns the Local Health Authority, is as follows:—

On receipt of intelligence by the Medical Officer of Health of the occurrence of a case of the infectious diseases above mentioned, or of a case of Influenza or Primary Acute Pneumonia, either by a statutory notification or through other channels, a card is prepared, giving the name, address, sex and age of the sick person, the nature of the illness, and any other revelant information. This card is handed to the Association, who at once take action appropriate to each particular case. Upon termination of the case, the card, bearing a brief record of the attendance given, is returned to the Medical Officer of Health for filing.

Co-incidently with the issue of the card, investigation is made into the surrounding circumstances of each case by one of the staff of the Health Department for the purpose is discovering what, if any, further action is necessary or desirable.

Midwives.—Except those attached to the Robson Maternity Home no midwife is either employed or subsidised by the Local Health Authority.

The Durham County Council, which is the Local Supervising Authority, administers the Rules of the Central Midwives Board.

There are 26 midwives practising in the District, exclusive of three attached to the Robson Maternity Home and one attached to Portrack Lodge, the Poor Law Institution.

Chemical Work.—There are no special arrangements in force in the district for chemical work, other than the examination of samples under the Food and Drugs Acts. Any work of this nature is sent to the County Analyst.

Legislation in Force.—List of Adoptive Acts, Local Regulations, and Bye-Laws in force in the District:—

Stockton-on-Tees Extension and Improvement Act, 1869

Stockton-on-Tees Extension and Improvement Act, 1889

The Local Government Board's Provisional Order Confirmation (No. 19) Act, 1913.

	Date adopted
The Public Health Acts (Amendment) Act, 1890, Part III	1st June, 1893
The Infectious Diseases (Prevention) Act, 1890	18th Sept., 1897
The Public Health Acts (Amendment) Act, Part V	6th April, 1908
The Public Health Acts (Amendment) Act, 1907, Parts 2, 3, 4, 6, and 8	19th July, 1909

The Housing of the Working Classes Act, 1890, Part III ...	**14th Dec. 1900**
Bye-laws in respect to Common Lodging Houses made ...	**29th April, 1879**
Bye-laws with respect to Slaughter-houses made	**17th Oct., 1888**
Regulations under powers conferred by the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order of 1885, made	**8th May, 1896**
Bye-laws for the Regulation of Offensive Trades and the Keeping of Swine, made	**25th Nov., 1903**
Bye-law with respect to Spitting in certain Public Places, made	**5th Feb., 1908**
Bye-laws with respect to New Buildings	**4th July, 1923**
Bye-laws in respect to Houses-let-in-lodgings, made ...	**9th Feb., 1925**

SANITARY CIRCUMSTANCES OF THE AREA.

Water.—Stockton-on-Tees is abundantly supplied with water by the Tees Valley Water Board. The Board's undertaking has involved an expenditure of between four and five millions sterling. All the water is now collected from five gathering grounds some thirty miles away. This is stored in Reservoirs which are connected by a tunnelled conduit in the valleys of the Balder and the Lune, tributaries of the Tees. The water is subject to filtration through gravel and sand before it reaches the storage reservoirs, of which there are several. The water from the Balder valley is softer than that from the Lune Valley, but neither has any plumbo-solvent action.

Our supply is abundant, constant and is of excellent quality.

Rivers and Streams.—Stockton-on-Tees is situated on the River Tees. The river forms one of the Borough boundries and separates the County of Durham from Yorkshire. It skirts the south-west and eastern borders of the Parkfield Ward, the curved portion of the South East Ward, along the South side of the Victoria Ward, and that portion of the Norton Ward facing South-east.

The River Tees receives the whole of the sewage of the town untreated.

This sewage has recently been considerably added to by the wholesale conversion of midden privies to the water-carriage system.

Lustrum Beck is a stream which runs through the Borough in a winding course and eventually joins the Tees and has several small tributaries. This stream, at times, overflows its banks but the water does not reach dwellings. No sewers or drains discharge into it.

Another stream, Billingham Beck, runs along the north and north-east border of the Norton Ward. This eventually joins the Tees.

DRAINAGE and SEWERAGE.

Drains.—All new drains are constructed of glazed stoneware pipes, jointed with cement and ventilated.

TABLE No. 3

New Sewers constructed during the five year period, 1920-1925.

Locality	Lineal yards	Size	Manholes	Flushing Shafts
Blue Hall Trunk Sewer	421⅓ 255⅓	18 inches 15 ,,	9	...
Blandford's Corner, Norton	178	9 ,,	5	...
Bishopton Road	1230⅓	9 ,,	15	...
Imperial Crescent	141⅔	9 ,,	2	...
Barnard Avenue and Gainford Road	696⅔	9 ,,	7	...
Oxbridge Avenue	561	9 ,,	7	...
Oxbridge Avenue Extension	514	9 ,,	7	...
Grangefield Road	611	12 ,,	7	...
Grangefield Road Extension	301	9 ,,	3	...
Grays Road	48	9 ,,	1	...
Windermere Road	292	9 ,,	6	...
Ullswater Road	57 70	9 ,, 6 ,,	1	...
Grasmere Road	68	6 ,,	1	...
Rydal Road	74	6 ,,	1	...
Blue Hall Housing Estate	1288⅓ 400 1172⅔	12 ,, 9 ,, 6 ,,	27	...
Total	8380⅓			

Sewers.—The sewers discharge directly into the River Tees without any previous treatment of their contents. There are seven principal outfalls situated at the Victoria Bridge, the Boat House, at the foot of Moat Street, Castlegate, Bishop's Landing, Commercial Street and Portrack.

The Tees at Stockton is a tidal river and there is considerable ebb and flow of water. The discharge of crude sewage into the river cannot be considered as being entirely satisfactory, and in the future the question of dealing with this subject may have to be considered. As the conversion of privy middens to the water carriage system proceeds the amount of sewage discharging into the river is necessarily increased.

Stockton, however, is only one town of several situated upon the tidal reaches of the river and if, in the future, action in regard to sewage treatment is needed, some understanding should be arrived at between the various riparian authorities so that joint action may be undertaken.

Closet Accommodation.—As in many towns, a large proportion of the closet accomodation originally provided for working class dwellings in Stockton consist of privy middens. The Health Committee, having realized that accommodation of this type is dangerously unhygienic, set about in a vigourous manner to convert the closets from the conservancy system to the Water Carriage System.
Rapid progress has been made in this excellent work and it is hoped that by the end of 1926 the whole of the closet accommodation in the town will be on the water carriage system, with the exception of a very few houses distant from sewers and situated near the boundaries of the Borough.

The progress made is shown in the subjoined table which has been compiled from figures supplied by the Borough Surveyor.

TABLE No. 4.

The number of closets on the conservancy system converted to the water carriage system during the past five years, 1921-1925.

Wards	1921	1922	1923	1924	1925
Central	3	0	18	128	117
Hartburn	1	1	6	32	24
Norton	6	4	12	9	91
North-West	1	3	8	39	366
Parkfield	0	1	6	32	383
Portrack and Tilery ...	167	74	221	204	339
South-East	5	0	13	37	2
South-West	6	7	4	3	172
Station	3	4	4	15	176
Victoria	54	0	1	0	0
West-End	2	4	4	47	315
	248	98	297	546	1985

The next Table, (the figures for which were also supplied by the Borough Surveyor) shows the number of conversions still to be done.

TABLE No. 5.

Wards	Houses with W.C's	Houses which share W.C's	Houses with MiddenPrivies	Houses which share Midden Privies	Houses with Pan Closets	Houses which share Pan Closets	Houses with Slop Closets	Houses with both W.C's and Privies	Houses with both W.C's and Pan Closets	Number of Houses
Central	1012	41	1	...	...	...	17	...	...	1071
Hartburn	998	...	404	6	15	...	...	52	5	1480
Norton	945	2	680	47	7	...	...	88	1	1770
North-West	1124	13	...	...	...	...	1	...	...	1138
Parkfield	988	...	207	...	14	...	1	...	...	1210
Portrack and Tilery	1353	12	12	...	7	...	2	...	...	1386
South-East	710	69	11	...	4	...	10	...	...	804
South-West	773	...	270	...	41	...	1	...	...	1085
Station	1179	14	2	...	3	...	97	...	...	1295
Victoria	1238	...	8	...	...	...	5	...	...	1251
West-End	1192	49	...	...	2	...	31	...	...	1274
	11512	200	1595	53	93	...	165	140	6	13764

It will be seen from this table that there are 165 slop closets in the town. Though technically these closets must be considered as water closets they constitute a highly undesirable feature in the sanitation of the town, and efforts should be made to alter them to meet modern standards and requirements.

SCAVENGING.

The rapid rate at which privy closets have been and continue to be converted necessitates a re-organisation of the methods of collection and disposal of refuse in the town. This re-organisation is at present being undertaken.

Unfortunately many of the middens have, after the installation of water closets, been left as dry ashpits, the emptying of which is a difficult matter. Formerly these privy middens were cleared during the night, but now, as the contents contain no faecal matter, this is carried out during the day. The day emptying has given rise to a certain number of complaints as it has been necessary to dump the contents upon the roadway to be collected in the carts. During the period of change when conversions were being carried out at the rate of 30 to 40 per week, some inco-ordination in the scavenging service was, perhaps, unavoidable, but this should easily be remedied when the conversion scheme is completed.

During 1925 the total amount of refuse collected was 16,074 tons and of this 5218 tons (32%) was incinerated at the destructor, the remainder being disposed of on tips in various situations in the district.

The 16,074 tons comprised night soil, dry ashpit refuse, ashbin contents, and trade refuse. The amount equalled 23.25 cwts per house per annum.

The cost of collection only was £8269-6-0 which equals 10/3.4 per ton, 11/11.8 per house, £121-12-1 per 1,000 of population and 2/5.1 per head of the population.

The cost of collection and disposal was £11,106-10-9, this being 13/9.8 per ton, 16/1.2 per house, £163-6-7 per 1,000 of the population and 3/3.1 per head of population.

The cost of treating the 5,218 tons at the destructor was £2,837-4-9.

Street Sweeping.—The cost of street cleansing was £8,109-19-4 and street watering £272-4-0 making a total of £8,382-3-4. Giving a cost of £116-14-1.6 per mile for cleansing and £3-18-4.1 for watering (or a gross cost of £120-12-5.7 per mile). 42 men are employed on street cleansing. One Motor sweeper is in use.

The proposed re-organisation of the service includes such items as the amalgamation of the scavenging and street sweeping, the shutting down of a portion of the destructor, the utilisation of more tips which it is intended should be managed on the Bradford System, the substitution of ashbins for dry ashpits and a publicity campaign to persuade householders to burn as much as possible of their own house refuse.

At present no charge is made for the collection of trade refuse.

SANITARY INSPECTION OF AREA.†

Number and nature of Inspections made by the Sanitary Inspectors during the year 1925.

DISTRICTS	No. 1	No. 2	No. 3	No. 4	Totals
Investigations made in respect to Notifiable Disease	144	684	2	10	840
Premises disinfected *re* Infectious Disease	31	249	1	3	284
Number of re-visits where cases are isolated at home	...	1	...	...	1
Inspections following complaints ...	155	71	76	71	373
,, under the Housing, &c., Acts	39	46	107	111	303
,, under the Public Health Acts	87	107	264	147	605
,, of Offensive Trades ...	88	...	117	79	284
,, of Workshops and Workplaces	4	34	...	12	50
,, of Factories	13	...	3	4	20
,, of Bakehouses	2	89	...	...	91
,, of Cowsheds	18	...	...	69	87
,, of Dairies and Milkshops	78	61	50	72	261
,, of Stables	5	...	3	2	10
,, of Slaughter Houses ...	669	...	1024	609	2302
,, of Markets and Shops ...	31	10	106	73	220
,, of Common Lodging Houses	50	...	290	...	340
,, of Ice Cream Shops ...	...	2	1	...	3
,, of Fried Fish Shops ...	...	...	22	43	65
,, in respect to Outstanding Notices	159	668	508	636	1971
Miscellaneous Inspections	103	15	73	604	795
Visits to Small-pox Contacts	221	436	58	2	717
Number of Samples taken for analysis	76	...	...	...	76
Number of Samples taken for Bacteriological Examination	34	...	...	...	34
Houses Let in Lodgings	3	...	23	...	26

NOTICES.

	Informal	Public Health Statutory	Housing Statutory	Total
Number of Notices served ...	743	83	136	962
Number complied with ...	634	63	126	823*
Number outstanding at end of year	116	20	55	191

*39 of these were completed by the Local Authority in default of Owners.

†For further information under this head see pages 51-2.

SUMMARY OF WORK DONE UNDER THE PUBLIC HEALTH ACTS.

Nature of Defects or Nuisances	Number Dis-covered	Informal Notices Served	Statutory Notices Served	Defects or Nuis-ances Remedied	Notices in arrear at end of 1924 complied with during 1925
Defective floors	42	42	14	34	23
Overcrowding	...	...	...	...	...
Dirty houses	4	4	...	4	1
Defective ventilation	33	33	12	28	27
Defective walls	47	47	10	44	13
Defective roofs	107	107	29	100	68
Defective eaves gutters	115	115	42	89	66
Defective fall pipes	57	57	17	47	45
Defective yard pavements ...	29	29	7	27	6
Defective plasterwork	37	37	11	30	30
Insufficient water supply ...	17	17	...	17	2
Offensive accumulations ...	22	21	...	22	1
Nuisances from animals	2	2	...	2	...
Improper food stores	2	2	...	...	...
Miscellaneous minor defects ...	91	91	15	79	38
Dirty water closets	13	13	...	13	...
Insufficient water supply to water closets	8	8	...	8	1
Defective soil pipes	2	2	...	2	2
Defective flush pipes	13	13	2	11	3
Defective cisterns	39	39	5	36	11
Defective W.C. pedestals ...	28	28	2	28	5
Defective privies	8	8	...	8	...
Defective ashpits	16	16	3	12	3
Defective pans	77	77	20	70	29
Defective or blocked drains ...	184	184	1	183	7
Defective sinks	3	3	1	3	...
Defective sink wastes	10	10	1	10	2
Defective cellar drainage ...	5	5	...	5	...

Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspec-tions.	Number of Written Notices.	Number of Prosecu-tions.
(1)	(2)	(3)	(4)
Factories (including Factory Laundries) ...	29	12	0
Workshops (including Workshop Laundries)	114	7	0
Workplaces (other than Outworkers' premises)	8	2	0
Total	151†	21	0

Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects. Found	Remedied	Referred to H.M. Inspector	Number of Prosecutions
(1)	(2)	(3)	(4)	(5)
*Nuisances under the Public Health Acts:—**				
Want of cleanliness	9	9	0	0
Want of ventilation	2	2	0	0
Overcrowding	1	1	0	0
Want of drainage of floors	1	1	0	0
Other nuisances	3	3	0	0
Sanitary Accommodation—				
Insufficient	3	3	1	0
Unsuitable or defective	10	10	1	0
Not separate for sexes	5	5	1	0
Total	34	34	3	0

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

†In addition to these inspections 2297 visits were paid to slaughter-houses and 289 visits to offensive trade premises, all of which are either factories or workshops.

Smoke Abatement.—Although Stockton-on-Tees possesses many large Engineering Works, Shipyards and Iron Works no complaint with respect to them was made. The industrial depression which has now lasted for some years has caused considerable lessening in the amount of smoke pollution.

PREMISES, ETC. WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

Houses Let in Lodgings.—Previous to the year 1925, Stockton-on-Tees possessed no Bye-laws dealing with this class of house. As a result of the house shortage many houses became tenanted by more than one family, and it was deemed expedient to formulate Bye-laws to deal with them. These were made and formal confirmation was received in February, 1925, and will eventually result in considerable amelioration of the conditions obtaining.

Offensive Trades.—There are nine premises where permission for the carrying on of an offensive trade has been given. In one gut-scraping only, in two gut-scraping and tripe-dressing, in three tripe-dressing only is carried on. Two are hide Factories, and in one fat-rendering is carried on.

Common Lodging Houses.—There are nine registered Common Lodging Houses in the Borough. Eight of these are registered under the provisions of Section 69 s.s. 2 of the Public Health Acts (Amendment) Act, 1907, while the remaining one is registered under the Public Health Act of 1875. Generally speaking the various Commom Lodging Houses are kept as clean as the nature of the premises permits, but the buildings themselves are not entirely suitable for the purpose. There is certainly a need in the town for a modern model lodging house.

Schools.—In the early part of the year an inspection was made of the sanitary arrangements of the schools in the Borough. The details are as follows:—

Richard Hind School.—The sanitary arrangements in this school were found to be satisfactory, except that certain repairs were necessary in the infants and boys conveniences. These have been carried out.

Hartburn School.—The condition of the conveniences at this school were satisfactory but it was found that the flushing from the automatic tank was not frequent enough. This has been altered and the condition now is satisfactory.

Tilery Road School.—The Sanitary conveniences at this school were found to be of a very unsatisfactory type. These have been replaced by an up-to-date installation of pedestal water closets.

Norton School.—The sanitary conveniences at this school are of a satisfactory type and are in good condition.

Carlile Memorial School.—Seperate water closets in good condition. The partitions between the water closets are of iron and are badly rusted.

Portrack Infants' School.—Sanitary conveniences in good condition.

St. Cuthbert's Infants.—Sanitary conveniences of a very unsatisfactory type, and in bad condition. New water closets and a new drainage system have been installed.

St. James' School.—Sanitary conveniences of a very unsatisfactory type. Nothing has yet been done to improve these.

Hume Street School.—Sanitary conveniences in good condition.

Bailey Street School.—Sanitary conveniences of an unsatisfactory type. Up-to-date closets installed in the boys and girls departments.

Bath Lane Boys' School.—Very unsatisfactory type of closets. Nothing has yet been done at this school.

St. Mary's School.—Sanitary conveniences in good condition.

St. Thomas' School.—Water closets of good type. Several minor defects were found and these have not yet been remedied.

Bowesfield Lane School.—Sanitary conveniences of good type and in good condition.

Newtown School.—Sanitary conveniences in good condition.

Mill Lane School.—Type unsatisfactory. One or two minor defects found. These have not yet been remedied.

Deaf School.—Sanitary conveniences in good condition.

Holy Trinity School.—Sanitary conveniences of a very unsatisfactory type. This school is now in process of alteration.

Oxbridge Lane School.—Sanitary conveniences of a satisfactory type.

The Tees Valley Water Board's supply is laid on to all schools.

HOUSING.

General Housing Conditions of the Area.—For the purpose of a review of the general housing conditions of the town, Stockton can, conveniently, be divided into two portions—the older central portion and the more modern.

The older central portion consists of the district surrounding the High Street and the built-up portion of the river frontage. Most of the original dwelling-houses near the High Street have been converted into shops and warehouses but there remains here and there a few houses in courts and alleys which are still used as dwelling-houses. The built-up portion of the river frontage contains much house property which is unsatisfactory. Practically the whole of this area has been scheduled for action to be taken under the Unhealthy Area sections of the Housing Acts. One considerable section of this area was represented as an unhealthy area and after a local inquiry the Ministry of Health has confirmed the scheme.

The more modern portions of the town contain many working-class dwellings which are, structurally, of a somewhat poor type. Inspections are constantly being made of this property under the Housing Acts and during the past five years repairs have been carried out by this means in 5,600 houses.

It is the practice to send informal notices of defects to the owners and to serve statutory notices only when the informal notices have been disregarded. This method of procedure has proved very satisfactory for during 1925 repairs were effected to 669 houses on informal notices, and it was necessary to serve only 136 formal notices.

The shortage of houses is widespread throughout the country and Stockton, like other towns, has suffered severely from this cause.

House shortage is a very serious problem in our national and local life. Its importance can hardly be overestimated, socially, morally and hygienically the effects of insufficient housing accommodation lower the efficiency and well-being of the people.

The Archbishop of Canterbury in his New Year's Day message says, inter-alia:—

> "There are great wrong things to be mended and we have to gird our loins thereto. It is unthinkable that we can leave unattended to or listlessly handled the housing conditions, which so long as they are unmet are working havoc upon all that is meant by pure home life."
>
> "Everybody deplores the baneful state of things, and brave and recourceful men in public life have this last year done what in them lies to mend it. But they are only half supported by the sort of public opinion which should be restlessly, resistlessly intolerant of so palpable and blatant an evil."
>
> "Christian folk, as such, should be making their voices heard in a way that cannot be gainsaid. Scarcely any sacrifice, individual or corporate civil or political, is too great for rolling away the reproach of conditions which, to our grandchildren, will seem unbelievable."
>
> "The best endeavours of public men will be paralysed until the voice of the whole people of every class declares that, cost what it may to any group or class of fellowship, we must bring this intolerable ill to an end."

It is hoped that this message will bear fruit. Houses, and yet more houses are the great need of the people at present and any differences of opinion which delay the erection of more houses, place an added burden upon the shoulders of those who suffer from this scarcity.

To meet this shortage the Corporation have proceeded with the erection of new houses with all possible speed and since the end of the war 542 houses have been erected on the two sites which were acquired by the Corporation for that purpose.

Contracts have been signed and work is proceeding in connection with an additional 356 houses on these two sites.

In order to obtain later information in respect of the Housing Needs of the town a Survey was taken during 1925 on similar lines to that undertaken for the Ministry of Health in 1919.

The following are extracts from my reports to the Committtee on the subject:—

The housing position based on the 1919 survey, was at the begining of the present year, (1925) estimated to be as follows:—

At the date of the survey of housing needs October 30th, 1919, it was estimated that the number of houses required to meet the unsatisfied demand for houses during the years 1919 to 1922 (taking into account the growth of the population, overcrowding, etc.) would be 800

To meet the normal demand for houses for the two years, not taken into consideration 1923 and 1924 on the basis of 117 houses per year (which was the average number of working class houses built annually during the five years before the war) the number required would be 234

Making a total of 1034

The number of houses built during the five years 1920-1924 inclusive is 470

The number of houses still required is therefore 564

During the first nine months of 1925, 95 houses have been completed.

Present Position as shown by the Survey just completed.

Preliminary Statement.

Houses inhabited by more than one Family.

Number of 2 roomed houses with:—

2 Families	28
3 Families	2

Number of 3 roomed houses with:—

2 Families	194
3 Families	5

Number of 4 roomed houses with:—

2 Families	772
3 Families	24
4 Families	6

Number of 5 roomed houses with:—

2 Families	377
3 Families	33
4 Families	2

Number of 6 roomed houses with:—

2 Families	249
3 Families	18
4 Families	6

Number of 7 roomed houses with:—

2 Families	78
3 Families	11
4 Families	6
5 Families	1

Number of 8 roomed houses with:—

2 Families	40
3 Families	8
4 Families	3
5 Families	1

Number of 9 roomed houses with:—

2 Families	19
3 Families	7
4 Families	2
5 Families	1

Number of 10 roomed houses with:—

2 Families	6
3 Families	2
4 Families	0
5 Families	1
7 Families	1

Number of 11 roomed houses with:—

2 Families	2
3 Families	3

Number of 12 roomed houses with:—

2 Families	2
6 Families	1

Number of 13 roomed houses with:—

2 Families	1
3 Families	1

Number of 14 roomed houses with:—

5 Families	1

Number of 17 roomed houses with:—

4 Families	1

Number of 20 roomed houses with:—

2 Families	1

These are distributed in the various Wards as follows:—

Central Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	1	0	0	0
3	5	0	0	0
4	46	2	3	0
5	40	4	1	0
6	49	3	0	0
7	17	2	0	0
8	2	0	0	0
9	0	1	0	0
14	0	0	0	1

Hartburn Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	2	0	0	0
3	10	0	0	0
4	65	1	0	0
5	24	1	0	0
6	7	0	0	0
7	2	1	0	0
8	2	0	0	0
9	6	0	0	0
10	1	0	0	0

Norton Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	1	0	0	0
3	6	1	0	0
4	58	2	0	0
5	28	0	0	0
6	19	2	0	0
7	9	0	0	0
8	3	0	0	0
9	0	1	1	0
10	1	0	0	0
11	1	0	0	0
12	1	0	0	0

North West Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	6	0	0	0
3	12	0	0	0
4	81	2	1	0
5	42	3	0	0
6	40	1	0	0
7	12	0	1	0
8	2	0	0	0
9	1	0	1	0

Parkfield Ward.

House. in House.	2 Fam	3 Fam	4 Fam	5 Fam
3	17	1	0	0
4	52	3	0	0
5	51	8	0	0
6	10	2	0	0
7	3	1	0	0
8	3	1	1	0
11	1	0	0	0
12	1	0	0	0

Portrack and Tilery Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	3	0	0	0
3	25	0	0	0
4	180	1	0	0
5	7	2	0	0
6	13	1	0	0
7	7	1	0	0
8	1	0	0	0
9	2	0	0	0

South East Ward.

(Excluding Unhealthy Area).

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam	6 Fam	7 Fam
2	8	1	0	0	0	0
3	26	1	0	0	0	0
4	32	4	2	0	0	0
5	19	4	0	0	0	0
6	12	2	5	0	0	0
7	6	3	1	1	0	0
8	8	1	0	0	0	0
9	1	0	0	0	0	0
10	1	0	0	0	0	0
11	0	1	0	0	0	1

South West Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam	6 Fam	7 Fam
4	48	1	0	0	0	0
5	39	0	0	0	0	0
6	36	0	0	0	0	0
7	7	0	0	0	0	0
8	9	1	0	0	0	0
9	4	1	0	0	0	0
10	2	1	0	1	0	1
11	0	1	0	0	0	0
13	0	1	0	0	0	0

Station Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5
2	1	0	0	
3	1	0	0	
4	46	0	0	
5	41	1	0	
6	32	3	0	
7	3	1	2	
8	1	1	0	
9	1	0	0	
10	1	0	0	

Victoria Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam	6 Fam
2	3	1	0	0	0
3	80	1	0	0	0
4	71	4	0	0	0
5	22	6	0	0	0
6	8	0	0	0	0
7	2	1	1	0	0
8	0	1	1	0	0
12	0	0	0	0	1

West End Ward.

Rooms in House.	2 Fam	3 Fam	4 Fam	5 Fam
2	3	0	0	0
3	12	1	0	0
4	93	4	0	0
5	64	4	1	0
6	23	4	1	0
7	10	1	1	0
8	9	3	1	1
9	4	4	0	0
10	0	1	0	0
11	0	1	0	0
13	1	0	0	0
17	0	0	1	0
20	1	0	0	0

The number of overcrowded houses (that is more than two persons per room) in the town, occupied by one family is 568. The needs of these 568 families is for larger houses.

Houses occupied by more than one Family.—It is recognised that certain large houses, might under present circumstances, be occupied by more than one family, so that in estimating the housing needs of that portion of the population where more than one family occupies a house, the following scale was adopted.

For each house up to six rooms not more than one family should be accommodated.

In houses of from 7 to 9 rooms not more than two families should be accommodated.

For houses of 10 to 12 rooms not more than three families; and in houses of 13 rooms and upwards not more than 4 families should be accommodated.

With this scale as basis 1756 families require housing accommodation.

Areas Scheduled at the 1919 Housing Survey.—Not included in the above are those portions of the town which were scheduled in 1919 for future action as Unhealthy Areas. The number of families resident in these areas and which when the areas are dealt with, will require rehousing is 597. The Housewife Lane area has been excluded from this figure as it is already dealt with.

The 568 families living each in a seperate house under overcrowded conditions require larger houses and were larger houses available, smaller families could move into the houses at present occupied by the 568 families in question.

Excluding the Scheduled Areas it would appear that 1756 additional houses are required in the town at the present moment, or including the Scheduled Areas, 2353.

The subtended table shows the figures for the various wards:—

Ward	Over-crowded	More than 1 family	Scheduled Areas.	Total
Central	9	161	117	287
Hartburn	48	112	—	160
North West	35	200	9	244
Norton	42	126	—	168
Parkfield	64	156	—	220
Portrack and Tilery	99	241	4	344
South East	12	50	456	518
South West	14	136	—	150
Station	7	135	—	142
Victoria	181	210	11	402
West End	57	229	—	286
	568	1756	597	2921

The average annual number of houses for the working classes built in the five years preceeding the war, was 117. In normal circumstances therefore, there should have been built, from the end of 1914 to the end of 1925, 1289 houses, but there have actually being built only 565 houses up to the end of September, 1925 so that the position is substantially worse than in 1919.

Housing Survey.—I append below a table showing the total number of houses in the town which are overcrowded. All houses where the number of occupants exceed two per room have been included, this being the same basis as that taken for the Census. The overcrowded houses in Scheduled Areas are also included in these figures.

Ward	Houses occupied by one family Overcrowded.	Houses occupied by more than one family Overcrowded.	Total
Central	21	23	44
Hartburn	48	14	62
Norton	42	15	57
North West	37	31	68
Parkfield	64	28	92
Portrack and Tilery	99	69	168
South East	44	77	121
South West	14	9	23
Station	7	16	23
Victoria	184	73	257
West End	57	22	79
Totals	617	377	994

FITNESS OF HOUSES.

The older portion of Stockton-on-Tees contains much house property which in the course of time has deteriorated and is now unsuitable for continued occupation.

During 1919 a Survey of Housing Needs was undertaken and nine areas comprising 576 houses were scheduled as areas which would have to be dealt with as unhealthy under Part 1 or Part 2 of the Act of 1890.

A portion of No. 1 Area, comprising 91 houses has already been dealt with and is reported under the Section of this report dealing with Unhealthy Areas.

In another case, an area of 14 houses, extensive repairs have been carried out under the Housing Acts and the houses are now in a habitable condition.

The ten houses comprising Area No. 7 have been closed as unfit for human habitation but owing to the shortage of houses they are still occupied.

The eight houses which comprise Area No. 8 have also been rendered fit for human habitation.

In addition to the above seven areas were scheduled as areas which may have to be dealt with as unhealthy under parts 1 and 2 of the 1890 Act, four areas were scheduled as areas which contain a large proportion of seriously defective houses but which could be adequately dealt with other than by Improvement Schemes, and one area was scheduled as an area which, although in a fairly sanitary condition, falls definitely below the ultimate standard to which it is reasonable to aim.

Since the date of this survey all the privies in these areas have been converted into water closets and a large proportion of the houses have been dealt with by notice under the Housing Acts, although the provision of sinks, food stores, and set-pots has not been required.

Since the end of the War the general standard of housing in the Borough has been considerably improved. The conversion of privies into water closets has been proceeded with at a rapid rate and it is hoped that this system will have been installed throughout the town by the end of the present year. The Tees Valley Water Board's supply is laid on to every house in the town. During the past few years a considerable amount of work has been done to the poorer class of property in the town on notices served by the Health Department under the Public Health and Housing Acts.

HOUSEWIFE LANE UNHEALTHY AREA.

An official representation under the Housing Acts, 1890 to 1923 was made to the Urban District Council on July 29th, 1924. The Ministry fixed July 14th, 1925 as the date for holding a Local Inquiry. This took place at the Borough Hall, the Inspector from the Ministry being Chairman. A large number of owners with their solicitors and counsel were present. The Inquiry was completed on the same day, and the following day the Inspector visited and inspected the area.

On November 27th, 1925 an Order confirming the scheme as modified by the Ministry was received. This Order reads as follows:—

70385. 27th November, 1925.
Housing Act, 1925.
Order confirming Improvement Scheme under Part I of the Housing Act, 1925.
Borough of Stockton-on-Tees.

BOROUGH OF STOCKTON-ON-TEES (HOUSEWIFE LANE IMPROVEMENT SCHEME) ORDER, 1925.

WHEREAS the Mayor, Aldermen and Burgesses of the Borough of Stockton-on-Tees, acting by the Council (herinafter referred to as "the Council") caused a scheme, dated the 6th day of March, 1925, (hereinafter referred to as "the scheme"), to be prepared under Part 1 of the Housing of the Working Classes Act, 1890, for the improvement of the area therein described, and, having complied with the requirements of the Housing Acts, 1890 to 1924, did on the 9th day of June, 1925, petition the Minister of Health, hereinafter referred to as "the Minister") for an order confirming the Scheme.

And whereas the relevant provisions of the Housing Acts, 1890 to 1924, have been repealed by the Housing Act, 1925, (hereinafter referred to as "the Act of 1925"), but have been re-enacted by Part II of the Act of 1925.

And whereas the Minister having caused a Local Inquiry to be held and having received the report made upon such Inquiry has decided to confirm the scheme subject to certain modifications therein.

NOW THEREFORE, the Minister, in the exercise of his powers under the Act of 1925, hereby makes the following Order:—

1. The Minister confirms the scheme as modified and set out in the Schedule hereto.
2. The Minister approves of the Council themselves undertaking the execution of the scheme.
3. The Council may, subject to the provisions of section 84 of the Act of 1925, borrow for the purpose of defraying any expenses incurred by them in connection with the scheme so far as such expenses are expenses properly chargeable to capital.
4. The provisions of the Lands Clauses Acts as modified by the Act of 1925 in relation to schemes under Part II of the Act of 1925, and by the Acquisition of Land (Assessment of Compensation) Act, 1919, shall be incorporated with this Order.
7. This order may be cited as the Borough of Stockton-on-Tees (Housewife Lane Improvement Scheme) Order, 1925.

SCHEDULE.

Scheme made by the Council under Part I of the Housing of the Working Classes Act, 1890, for the improvement of the Housewife Lane area as modified and confirmed by the Minister of Health.

1. The lands coloured pink and blue on the Map, which lands are situate wholly in the Borough of Stockton-on-Tees shall constitute the area to which this scheme applies (hereinafter referred to as "the area").

2. The lands coloured pink are included in the area on account of the sanitary condition of the premises thereon or of those premises being dangerous or injurious to health, and the lands coloured blue are so included for the purpose only of making the scheme efficient.

3. The lands constituting the area, or any of them, may for the purposes of this scheme be taken either by agreement or compulsorily.

4. After obtaining possession of the lands included in the area, the Council shall, except so far as the Minister may otherwise direct, demolish all the buildings in the area.

Provided that they shall not demolish any occupied house in the area until accommodation for a number of persons equivalent to the number of working-class occupants of such house is available in new dwellings to be erected by the Council in pursuance of this scheme, unless the Council are satisfied that suitable alternative accommodation for such occupants is available elsewhere.

5. The Council may, with the consent of the Minister sell or lease any of the land in the area or exchange any of that land for any other land within the area with or without payment for equality of exchange, or appropriate any of that land to any purpose for which they have power to hold land.

6. The Council shall provide, on a site or sites elsewhere than in the area, and in accordance with plans to be approved by the Minister, dwellings suitable for the accommodation of 835 persons of the working classes.

7. All lands upon which dwellings are erected in pursuance of the last preceding clause shall, for a period of 25 years from the date of the order of the Minister confirming this scheme, be appropriated for the purpose of dwellings for persons except so far as the Minister may dispense with such appropriation, and every conveyance, demise, or lease of any of those lands shall be endorsed with notice of this provision.

8. The Council may, with the consent of and in accordance with plans to be approved by the Minister lay out and construct new streets and widen existing streets in the area and close or divert any highways in the area.

9. In this scheme the expression "the Map" means a map prepared in duplicate and sealed with the official seal of the Minister and marked Borough of Stockton-on-Tees (Housewife Lane) Improvement Scheme, 1925, Map showing area of Scheme, one duplicate of the said map is deposited in the Office of the Minister and the other in the offices of the Council.

10. This Scheme may be cited as "The Borough of Stockton-on-Tees (Housewife Lane) Improvement Scheme, 1925."

Given under the Official Seal of the Minister of Health, this twenty seventh day of November, in the year one thousand nine hundred and twenty-five.

H. W. S. FRANCIS,

Assistant Secretary, Ministry of Health.

This modified scheme did not materially affect the definitely unhealthy area.

The scheme embraced an area of 4.4313 acres of which 2.9362 acres constituted the definitely unhealthy area, the remaining 1.4951 acres being added to make the scheme efficient.

The number of premises or hereditments in the area were 151 of which 132 were coloured pink and 19 coloured blue.

The population of the area is 846 occupying 91 houses. In the definitely unhealthy area the population is 721 occupying 79 houses (there are 29 derelict houses in the area) giving a density of 245.5 persons and 36.7 houses per acre.

On the area added to make the scheme efficient there are 125 persons and 12 houses which gives a density of 83.6 persons and 8 houses per acre. Owing to the confused layout certain portions of the area present a much greater density than others, the land adjacent to the river, which was included to make the scheme efficient, being unoccupied by houses.

The detailed densities of the separate areas are shown in the following tables:—

	Area in Acres	Total Houses	Density per acre
Area	4·4313	120	27·0
Definitely unhealthy area	2·9362	108	36·7
*Added area	1·4951	12	8·0
Snowden's Yard area ...	0·3774	23	60 9
Smithfield ,, ...	0·2708	15	55·3
Cherry Lane ,, ...	0·5544	30	39·6
Constables Yard ,, ...	0·2817	12	42·5
Bolton House ,, ...	0·6408	23	35·8
Quayside ,, ...	0·4360	12	27·5
*Lodging House ,, ...	0.6088	5	8·2
*Marine Store ,, ...	0·3180	...	...
*Quays ,, ...	0·9434	...	...

*Areas added to make the scheme efficient.

DENSITY OF POPULATION.

Total Area	190·9	persons	per acre
Definitely unhealthy area	245·5	,,	,,
*Added area	83·6	,,	,,
Snowden's Yard area	386·0	,,	,,
Smithfield ,,	306·0	,,	,,
Cherry Lane ,,	535·0	,,	,,
Constables Yard ,,	241·0	,,	,,
Bolton House ,,	157·0	,,	,,
Quayside ,,	158·0	,,	,,
*Lodging House ,,	134·0	,,	,,
*Marine Store ,,	...		
*Quay ,,	...		

***Areas added to make the scheme efficient.**

The roadways which give access to the interior portion of this area are narrow and do not allow of adequate circulation of air, varying from 6 to 8½ feet wide, and are flanked on both sides by 2 and 3 storey buildings and in some cases by a narrow covered passage.

There are 120 houses, 29 of which are derelict, 10 have been vacated on Closing Orders, and 1, which is subject to an existing Closing Order is still occupied. 15 are of the back to back type and 3 have no through ventilation. A further 13 houses, though not back to back, have through ventilation by window only.

The whole of the houses in the definitely unhealthy area are in varying stages of dilapidation and disintegration.

The conditions under which these people live is emphasised by the fact that 72 families living in tenements have only bedroom fireplaces for cooking, washing, etc., have no proper food stores, and water for domestic purposes has to be carried upstairs. 11.43 persons must use each water closet in the area and in some instances these water closets are situated at a considerable distance from the house.

The results of living under such conditions are shown in the statistical tables which I have prepared, thus the general death-rate taken as an average over a period of ten years, is, in the Unhealthy Area 35.24 per 1000, as compared with 16.49 for the Borough as a whole. The tuberculosis death-rate is 4.80, compared with 1.71, and from Pulmonary tuberculosis it is 3.67 compared with 1.17. For non-pulmonary tuberculosis the rate for the area is 1.13, compared with 0.54. From respiratory diseases the rate for the area is 8.56 compared with 3.38.

During the last four years 56 per cent of the children of school age in the area have attended the School Clinic, compared with 31 per cent for the whole of the Borough.

Byelaws relating to tents, vans, sheds, etc.—From time to time difficulties have arisen from the occupation of vans on waste land in various parts of the town. The sanitary arrangements connected with this type of temporary dwelling are necessarily inadequate. It would be of benefit to the town and also to the dwellers in vans if a van compound were formed in which all vans could be required to stand. It would be necessary for water to be laid on to one or two stand pipes. Water closets should be provided and the ground should be properly drained. A set-pot for the use of the van dwellers would also be needed. The cost of such a scheme would not be great and a small charge could be made for standing.

HOUSING STATISTICS FOR THE YEAR 1925.

Number of new houses erected during the year :—

(a) Total 151

(b) With State assistance under the Housing Acts :

(i) By the Local Authority 106

(ii) By other bodies or persons 16

1. Unfit Dwelling Houses. Districts	No. 1	No. 2	No. 3	No. 4	Total
Inspection—					
(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	127	117	371	250	865
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District Regulations), 1910 ...	42	46	107	111	306
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ...	...	...	15	...	15
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub heading) found not to be in all respects reasonably fit for human habitation ...	42	163	356	250	811
2. Remedy of Defects without service of Formal Notices.					
Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers ...	18	92	349	210	669
3. Action under Statutory Powers.					
A. Proceedings under Section 3 of Housing Act, 1925					
(1) Number of dwelling houses in respect of which notices were served requiring repairs...	22	18	33	63	136
(2) Number of dwelling houses which were rendered fit after service of formal notices :—					
(a) by owners	9	18	18	41	86
(b) by Local Authority in default of owners	2	1	9	27	39
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intentions to close...	...	...	...	...	...

HOUSING—*Continued.*

Districts	No. 1	No. 2	No. 3	No. 4	Total
B. Proceedings under Public Health Acts.					
(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	12	10	31	30	83
(2) Number of dwelling houses in which defects were remedied after service of formal notices					
(a) by owners	9	10	18	27	64
(b) by the Local Authority in default of owners	...	...	...	...	...
C. Proceedings under Sections 11, 14 & 15, of the Housing Act, 1925					
(1) Number of representations made with a view to the making of Closing Orders ...	...	...	15	...	15
(2) Number of dwelling houses in respect of which Closing Orders were made	...	...	15	...	15
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	...	...	...	...	...
(4) Number of dwelling houses in respect of which Demolition Orders were made ...	...	...	...	...	...
(5) Number of dwelling houses demolished in pursuance of Demolition Orders	...	...	...	...	...

INSPECTION AND SUPERVISION OF FOOD.

MILK.

Milk Supply.—There are at present 29 persons registered as cow keepers in the Borough of Stockton-on-Tees.

The daily yield of milk from the above sources varies but is in the neighbourhood of 600 gallons per day. The whole of this quantity is distributed in the town. In addition a considerable quantity of milk produced outside the Borough is retailed in the town. It is estimated that the daily consumption of milk in the Borough is about 2,500 gallons.

During the year much attention has been given by the Staff of the Health Department to the supervision of the milk supplies. A circular letter has been sent to each producer of milk giving details as to how clean milk can be produced. Numerous visits have been paid to the various cowsheds in the Borough and when samples of milk have been examined bacteriologically the results have been communicated to the cowkeepers together with suggestions as to how (when necessary) improvements in the bacterial count can be obtained.

By arrangement with the Durham County Council a demonstration of clean milking methods was given at a farm in the Borough.

In addition to the above I prepared several articles on the subject which appeared in the local newspapers.

As a result of these activities greater care is being exercised by milk producers to ensure cleanliness of milking, handling, and the transport of milk, though much still remains to be done in this direction.

The present methods of handling and distribution of milk are haphazard and antiquated and at each stage between cow and consumer the milk runs considerable risk of contamination by dust and and other forms of dirt.

The only safe way to distribute milk is in sealed, sterilised bottles, into which the milk should be put as soon as possible after it has left the cow. The actual milking should be carried out with all possible precautions and the milk from each individual cow should be immediately conveyed to a cooling machine and, after cooling, filled directly into the bottles.

It may be objected that the provision of bottles and of a cooling apparatus add to the expense of milk production, but the protection of milk from contamination is of such vital importance to infants that such extra cost must be considered as a necessary charge on the production of milk.

Pasteurisation of milk is carried out by the Stockton Co-operative Society which draws its milk from a large number of farms in the Southern portion of the County of Durham and part of the North Riding of Yorkshire.

Though one must commend such attempts to deliver milk to the customer in a (comparatively) clean condition, the fact that Pasteurisation is carried out cannot be considered as anything but a confession of failure to obtain and maintain milk in clean condition. It cannot be too widely recognised that Pasteurisation of milk ought to be unnecessary.

During the year 1925, 34 samples of milk were sent for bacteriological examination. The results are shown in the subjoined table.

TABLE No. 6.

Bacteriological Examination of Milk for Total Number of Organisms and for the presence of Tubercle Bacilli—1925.

No. of Sample	Total Organisms average per c.c.	Presence of Bacillus Coli per c.c.	Source of Supply	Presence of Tubercle Baccilli	Remarks
1	44,000	Pos. in 0,01 c.c.	Milkshop	neg.	
2	35,700	,, 0·01 c.c.	,,	neg.	
3	48,150	,, 0·01 c.c.	,,	neg.	
4	17,200	,, 0·01 c.c.	Wholesale Store	neg.	Pasteurized
5	23,500	,, 0·01 c.c.	,,	neg.	Returned milk from rounds
6	44,000	,, 0·01 c.c.	,,	neg.	Pasteurized
7	80,000	,, 0·01 c.c.	,,	neg.	Not Pasteurized
8	74,000	negative	Cowkeeper	neg.	
9	59,000	negative	Milk-shop	neg.	
10	138,000	,, 1.0 c.c.	Wholesale Store	neg.	
11	2,400	,, 1·0 c.c.	,,	neg.	Pasteurized
12	10,900	,, 0·01 c.c.	,,	neg.	,,
13	140,000	,, 0·01 c.c.	,,	neg.	,,
14	40,000	,, 0.01 c.c.	,,	neg.	,,
15	8,600	negative	Cowkeeper	neg.	
16	500,000	,, 0·01 c.c.	,,	neg.	
17	500,000	,, 0·01 c.c.	,,	neg.	
18	500,000	,, 0·01 c.c.	,,	neg.	
19	500,000	,, 1·00 c.c.	,,	neg.	

20	29,650	Pos. in	0·10 c.c.	Cowkeeper	neg.	
21	41,000,000	,,	0·000001 c.c.	,,	neg.	These six were taken again, some delay having taken place, resulting in the high count
22	50,000,000	,,	0·000001 c.c.	,,	neg.	
23	50,000,000	,,	0·000001 c.c.	,,	neg.	
24	50,000,000	..	0.000001 c.c.	,,	neg.	
25	50,000.000	,,	0·000001 c c.	..	neg.	
26	50,000,000	,,	0 000001 c.c.	,,	neg.	
27	75,000	,,	1.0 c.c.	,,	neg.	
28	51,000	,,	0·01 c.c.	,,	neg.	
29	10,000		negative	,,	neg.	
30	1,080.000	..	0·1 c.c.	,,	neg.	
31	134,000	,,	1·0 c.c.	,,	neg.	
32	252,000	,,	0·00001 c.c.	,,	neg.	
33	...	,,	0·01 c.c.	,,	neg.	
34	..	,,	0·1 c.c.	,,	neg.	

Samples Nos. 21 to 26 are interesting as showing the enormous increases of organisms which results from the keeping of milk. Owing to a misunderstanding these samples were not collected from the railway for 24 hours.

The law takes cognisance of deficiency of the normal solid constituents of milk or of excess of water but not of the number of organisms present in it or of the presence of dirt, though these factors are of much greater importance from the point of view of potentiality for harm than is the addition of clean water to the milk.

The increasing use which is being made of dried milk is a direct result of the fact that wet milk as supplied by the average dealer is so heavily contaminated by micro-organisms as to constitute a dangerous food for infants. The remedy for this state of affairs lies in the hands of the producers and distributors.

It will be noticed that no tubercle bacilli were found in the samples sent for examination. This does not necessarily prove that the samples were free from this organism, for in most cases the samples consisted of mixed milk from several cows and the consequent dilution would be so great as to render the detection of tubercle bacilli extremely difficult.

The Tuberculosis Order provides a more satisfactory method of eliminating tubercular animals from herds. Up to the end of the year declaration of suspected tubercular disease was made in the case of five animals. These were inspected by the Veterinary Inspector and all were slaughtered. In each case tuberculosis was present.

The administration of the Contagious Diseases (Animals) Acts has recently been transferred from the Police to the Health Department and during the early months of 1926 considerable strides have been made in the detection and slaughter of tubercular animals.

Mutual arrangements have been entered into with the Health Departments of neighbouring Local Authorities whereby all animals discovered to be tubercular when examined in slaughter-houses are traced to the place of origin and the remaining animals on the farm are then examined for tuberculosis.

During 1925, 51 new cases of non-pulmonary tuberculosis in human beings (mostly in children) were notified in the Borough. The concensus of medical opinion agrees that non-pulmonary tuberculosis (particularly in children) originates through the ingestion of tubercle infected milk. It is confidently anticipated that with the more extensive powers to deal with tubercular bovines which have recently been conferred on Local Authorities the incidence of non-pulmonary tuberculosis will greatly diminish. To enable this desirable end to be attained close accord must be maintained between the milk and meat consuming areas and those in which these products are produced, and these latter must be energetic in their efforts to follow up any information supplied and to deal with suspected animals.

Milkshops.—The conditions under which milk is sold in shops has been a matter for serious consideration during the year. At the beginning of the year there were approximately 100 shops from which milk was retailed.

Many of these shops are small general stores in which a great variety of goods is sold and in which the quantity of milk sold daily is small. In these cases the milk is sold, not so much as a source of profit, but in order to draw custom for the other articles sold.

My opinion, which has been endorsed by the Council, is that the sale of milk from the same premises as root crops, paraffin, etc., is undesirable, and that under such circumstances contamination of the milk is bound to occur.

Twelve applications for registration have been refused on the above grounds and 17 vendors have voluntarily discontinued the sale of milk when the above views were explained to them.

Further action is at present pending, and the cancellation of 24 registrations of retail purveyors is under consideration.

Milk (Special Designations) Order, 1923.—Under this order only one license, and that for Pasteurized Milk, has been granted.

MEAT REGULATIONS AND MEAT INSPECTION.

The Public Health (Meat) Regulations became operative on April 1st 1925.

At a meeting of the Health Committee held on November 12th 1924, I reported on these Regulations (which were then in draft form) as follows:—

Health Office,
Borough Hall,
Stockton-on-Tees.
November 4th, 1924.

To the Chairman and Members of the Health Committee.

Gentlemen,

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

It is proposed that these regulations shall come into force on January 1st 1925.

The Regulations are still in draft form and criticism has been directed towards certain details of them. It is possible that modifications may be made in some of the details before they are officially issued.

The object of these Regulations is to secure more thorough inspection of the carcases of animals slaughtered for food, and for the better protection of meat during preparation and exposure for sale, and during transport.

The Municipal Borough of Stockton will be responsible for carrying out the Regulations.

PART I. GENERAL.

The Medical Officer of Health and Sanitary Inspector shall have power to enter and inspect places to which the Regulations apply, but the Local Authority may authorise in writing any other Officer to carry out these duties. By this means authority can be given to Assistant Sanitary Inspectors.

No person suffering from an infectious disease shall take part in the slaughtering of animals intended for human consumption or the handling of meat. As this paragraph stands it is doubtful whether it will include persons suffering from active Tuberculosis.

PART II. SLAUGHTER-HOUSES and SLAUGHTERING.

Three hours notice of intention to slaughter must be sent to the Medical Officer of Health. Where it is the practice to slaughter at fixed times on fixed days and written notice of this practice is given, special notice to slaughter individual animals need not be given if the notified days and times are adhered to.

I have drafted a post-card as a form of special notice which, with your permission, I will have printed and distributed to the local butchers when the regulations become operative.

The Regulations further provide that the meat and organs of an animal must be left in the slaughter-house for three hours after slaughter so as to to give the inspectors an opportunity to examine them. The slaughterer must also notify the Medical Officer of Health if the carcase appears diseased or unsound and in this case must allow it to remain for six hours, unless before the expiration of that time it has been inspected by an officer of the Local Authority.

No gut-scraping, tripe cleaning, or preparation of articles of food for man or animals, or other work than is involved in the slaughter and dressing of carcases shall be carried on in any slaughter-house. Blowing or inflating of carcases is prohibited.

PART III. STALLS.

Meat on Stalls shall be protected from dirt and flies and the stall itself shall be covered and screened at the sides and back. (These provisions do not apply to stalls in an enclosed and covered market-place).

PART IV. SHOPS, STORES, Etc.

'Certain sanitary provisions are to be carried out in shops, etc., where meat is exposed or deposited, or prepared for sale. Meat shall be protected from contamination by dirt, etc. An open-fronted butcher's shop would contravene these Regulations.

PART V. TRANSPORT and HANDLING.

Vehicles used for conveying meat to be kept clean. Meat carried in open vehicles to be adequately potected by clean coverings, and persons engaged in handling or transporting meat shall not permit any portion of the meat to come into contact with the ground. 'Carriers of meat shall wear a clean and washable head covering and overall.

PART VI. MEAT MARKING.

When a Local Authority shows to the satisfaction of the Ministry that suitable arrangements (including the appointment or employment of competent inspectors) for the inspection at the time of slaughter of animals slaughtered within the district, the Ministry may authorise the use of a distinctive mark to be applied to such carcases as are sound and free from disease, at the request or with the consent of the person being in possession of the carcase at the time of inspection. A charge may be made for a carcase or part of a carcase so marked.

PENALTIES.

Any person who wilfully neglects or refuses to obey or carry out these Regulations is liable to a penalty not exceeding £100 and a further penalty not exceeding £50 for every day during which the offence continues.

These regulations have proved of distinct advantage and have facilitated the examination of carcases of animals intended for human food. Prior to the date on which they became operative a copy of the Regulations and an explanatory letter was sent to each butcher in the town, and I also addressed a well attended meeting of the Stockton and Thornaby Butcher's Association and explained the working of the Regulations. As a result of this action very little difficulty was met with when the Regulations actually came into force.

Part II of the Regulations deals with slaughter houses and slaughtering and provides for notice of intention to slaughter being sent to the Local Authority and also lays down that notice shall forthwith be given of any carcase which appears to be diseased.

This part of the Regulations has worked very well and very little difficulty has been experienced in complying with its provisions. Notifications of intended slaughter have been received promptly and and a very much higher proportion of carcases has been examined by the Inspectors than was the case previously.

The systematic examination of all carcases is rendered difficult by the fact that the twenty-seven slaughter-houses in existance are widely scattered throughout the town. As will be seen from the next table the number of carcasses which have been found to be affected by disease is considerably higher than in previous years and points to the conclusion that all carcases should be methodically examined.

With the present staff that has not been possible, and I recommend for consideration the appointment of one inspector to carry out the whole of this work, in conjunction wih the duties of Inspector under the Contagious Diseases of Animals Acts.

Up to now each District Sanitary Inspector has done this work in his own district but such work interferes with other duties and is, in turn, interfered with by the diversified duties of the district.

The increasing importance which is now attached to meat inspection renders it advisable that the inspector performing the work should possess the Meat Inspectors Certificate and also that the entire work should be done by one individual so as to ensure uniformity of method and standards.

One result of the Regulations has been that the local butchers are now disinclined to purchase cows and a distinct improvement is noticeable in the quality of animals handled in the local slaughter-houses.

Table showing the number of animals killed and inspected and the percentage inspected from April 1st, 1925.

Animals	Number Killed	Number Inspected	Percentage Inspected
Cattle	2618	1803	82·9
Calves	267	179	71·2
Sheep	6805	3981	73·8
Pigs	5078	3184	77·0
Total	14768	9147	76·2

Table showing the Meat condemned by Inspectors during 1925.

Animal	Carcase and Organs	Part Carcase	Lungs	Livers	Mesentery	Other Organs	Number of animals Involved
Cattle	30	25	30	57	4	10	145
Calves	2	...	...	...	...	...	2
Sheep	3	1	3	4	...	1	12
Pigs	17	7	2	2	...	2	30
Total	52	33	35	63	4	13	189

Meat condemned during first 3 months.

Cattle	3	4	3	6	3	3	11
Calves	1	...	...	...	...	...	1
Sheep	...	...	...	...	...	...	...
Pigs	1	...	...	...	...	...	1
Total	5	4	3	6	3	3	13

Meat condemned during last 9 months.

Cattle	27	21	27	51	1	7	134
Calves	1	...	...	...	...	...	1
Sheep	3	1	3	4	...	1	12
Pigs	16	7	2	2	...	2	29
Total	47	29	32	57	1	10	176

Table showing the Meat condemned for Tuberculosis during 1925.

Animal	Carcase and Organs	Part Carcase	Lungs	Livers	Mesentery	Other Organs	Number of animals involved
Cattle	29	15	18	8	4	9	56
Calves	1	...	...	...	...	...	1
Pigs	14	7	...	...	...	...	21
Total	44	22	18	8	4	9	78

Meat condemned for Tuberculosis during first 3 months.

Cattle	3	3	1	1	1	1	7
Calves	...	...	...	...	...	...	...
Pigs	...	...	...	...	...	...	...
Total	3	3	1	1	1	1	7

Meat condemned for Tuberculosis during last 9 months.

Cattle	26	12	17	7	3	8	49
Calves	1	...	...	...	...	...	1
Pigs	14	7	...	...	...	...	21
Total	41	19	17	7	3	8	71

Out of a total of 1,803 carcases of cattle examined 3.1% were found to be infected by tuberculosis and 0.5% of the calves were similiarly affected. No tuberculosis was discovered in the sheep. 0.65 of the pigs examined were infected by tuberculosis.

Part III of the Regulations deals with the subject of meat marking.

Up to the present no efforts have been made to put this part of the Regulations into force. In order to do so it is necessary that arrangements be made for the inspection of the whole of the carcases of animals slaughtered within the Borough. This could be done were the suggestions for a full-time Inspector of Meat and other foods carried into effect.

The town is at present divided into four sanitary districts but as district No. 2 is under the charge of a woman Sanitary Inspector and the inspection of meat and slaughter-houses is essentially a man's work one of the male sanitary inspectors is in charge of this work in this particular district in addition to his own district. He thus has fifteen slaughter-houses under his supervision.

During the nine months since the meat Regulations came into force this inspector has examined the carcases of 4,754 animals which represents 47.2% of the animals slaughtered in the two districts for which he is responsible. The two remaining inspectors have examined 3,650 (97.2%) and 1,291 (85.72%) of the animals killed in their respective districts.

Pending a decision on the appointment of a full-time Food Inspector a more equable distribution of the slaughter-houses among the three inspectors has been made which should result in a higher total percentage of examinations of the carcases of animals intended for human food.

Part IV, of the Regulations deals with stalls in an open market, streets, etc. The provisions of this part of the Regulations has given a certain amount of power to Local Authorities to enforce measures for the protection of meat in open makets, but the powers conferred are insufficient to safeguard the meat from contamination by flies and dust. The exposure of such products as tripe in an open street market is undesirable for it is impossible to prevent its contamination when placed on stalls which must be open on one side.

It is regrettable also that no powers exist to prohibit the exposure of sweets, etc.

Part V of the Regulations deals with shops. Little difficulty has been met with in regard to shops, and it is now very rare to see a butcher's shop in the town where the window is left open even temporarily.

Slaughter-houses.—Of the 27 slaughter houses in the Borough three are of modern construction and are structurally suitable for the purpose. The remainder vary greatly and on the whole are kept as clean as the nature of the premises will permit.

The subject of a public abattoir has remained in abeyance during the year.

The gradual growth of towns has rendered necessary the removal of cattle markets from open market places and streets to enclosed premises specially constructed for the purpose and also, in the case of larger towns, has necessitated the placing of cattle markets on the outskirts of the town in close proximity to railway sidings, so as to avoid the nuisance of driving animals through the streets.

What is desirable in all towns of considerable size is a suitable site on the outskirts on which can be constructed a cattle market sale rings, public abattoir, and adequate cold storage space.

There would appear to be further scope for cold storage accommodation in this district which should be conveniently situated on the river as it might be possible to attract ships carrying chilled meat to the river for the supply of the Town and the southern half of the County.

The number of slaughter-houses in use in the area at the dates mentioned is shown below:—

	In 1920.	In Jan. 1925.	In Dec. 1925.
Registered	—	—	—
Licensed	28	28	27
Total	28	28	27

PUBLIC HEALTH (PRESERVATIVES ETC., IN FOOD) REGULATIONS, 1925.

In these Regulations, which it is proposed shall come into force on 1st January, 1927, no person shall manufacture for sale or sell any article of food which contains:—

(a) Any added preservative except as specified in Part 1 of the First Schedule to these Regulations; or

(b) Any of the colouring matters specified in Part 2 of the said Schedule.

Certain articles of food are specified in these Regulations to which certain preservatives may be added in quantities not exceeding a stated amount. In such cases the articles of food must be labelled in accordance with the rules set out in the Schedule.

This provision (labelling) shall not apply when the article of food is sold in a hotel, restaurant or other such place, for consumption on the premises.

The draft Regulations contain no rule that notices shall be displayed in hotels, etc., that the foods contain preservatives. This appears to be a regrettable omission.

THE FIRST SCHEDULE.

PART 1.—Articles of food which may contain preservatives, and nature and proportion of preservative in each case:—

(1) The articles of food specified in the first column of the following table may contain sulphur dioxide in proportions not exceeding those specified in the second column:—

	Food.	Maximun proportion of Sulphur Dioxide.
1.	Sausages	3 grains per pound.
2.	Jam	0.3 grains per pound.
3.	Fruit and Fruit Pulp, not dried	5 grains per pound.
4.	Dried Fruit	7 grains per pound.
5.	Beer and Cider	5 grains per gallon.
6.	Alcoholic Wines	3 grains per pint.
7.	Non-alcoholic wines and cordials, fruit juices, sweetened or unsweetened	3 grains per pint.

(2) The articles of food specified in the first column of the following table may contain benzoic acid in the proportions not exceeding those specified in the second column:—

Food.	Maximun proportion of Benzoic Acid.
1. Coffee Extract	3 grains per pound.
2. Non-alcoholic wines and cordials, fruit juices, sweetened or unsweetened.	5 grains per pint
3. Sweetened Mineral Waters, and Brewed Ginger Beer	1 grain per pint.

Provided that no article of food may contain both sulphur dioxide and benzioc acid.

PART 2.—Colouring matters which may not be added to articles of Food:—

1.—Metallic Colouring Matters:—

Compounds of any of the following metals:—

Antimony,
Arsenic,
Cadmium,
Chromium,
Copper,
Mercury,
Lead,
Zinc.

2.—Vegetable Colouring Matter:—

Gamboge.

3.—Coal Tar Colours:—

Number in Colour Index of Society of Dyers and Colourists, 1924.	Name.	Synonyms.
7.	Picric Acid	Carbazotic Acid.
8.	Victoria Yellow	Saffron Substitute; Dinitrocresol.
9.	Manchester Yellow	Naphthol Yellow; Martius Yellow.
12.	Aurantia	Imperial Yellow.
151.	Orange II	Mandarin G Extra. Tropaeolin 000, No. 2.
724.	Aurine	Rosolic Acid; Yellow Coralline.

Foodstuffs Exposed in Shops and Stalls.—A letter dealing with the exposure of foodstuffs in shops and stalls was distributed to sweet-shops, stallholders, etc.

(Copy Letter)

Health Department,
Borough Hall,
Stockton-on-Tees,
July, 1925.

Dear Sir (or Madam),

The Health Committee of the Stockton Corporation views with alarm the exposure of foodstuffs in shops and on stalls, in such a manner as to render the articles exposed liable to contamination by dirt, dust, and flies. Sweets, cakes, pastry, bread, and many other articles of food are eaten exactly as purchased from the shop or stall, and unless precautions are taken to protect such articles from dirt, considerable harm may ensue to the consumer.

The exposure in open trays of sweets is particularly to be deprecated, as from their nature these articles are liable to attract flies, while street dirt in the form of dust adheres to their surface. The keeping of sweets in wide-mouthed glass bottles or jars affords protection against both dirt and flies, and in no way interferes with the display of the goods.

The Health Committee appeals to all vendors of foodstuffs to use all possible care in the protection of their wares from dirt, dust, and flies, and feels sure that vendors will co-operate with the Health Department to ensure that food supplied to the public shall be clean and wholesome.

Yours faithfully,
G. C. M. M'GONIGLE,
Medical Officer of Health.

The results of this letter have been encouraging as several vendors have taken steps to prevent contamination by dust etc. of their goods. Power to **compel** precautions being taken are needed.

Other Foods.—During the year 1925 the undermentioned food-stuffs were submitted for examination and were condemmed as unfit for food.

53½ lbs.	Halibut.
2 lbs.	Cod.
70 lbs.	Imported Beef.
7½ lbs.	Imported Pork.
8 tons	Potatoes
1 stone	Kippers.
6 doz.	Jars Shrimps.
1 Can	Prawns.
1 cwt.	Mussels.

During the year visits were paid periodically to all premises where foods are manufactured, prepared, stored or exposed for sale. All the premises were kept in a satisfactory condition, and the bakehouses were limewashed at regular intervals. One Inspector is on duty in the market on each market day.

The number of visits paid to these premises is shown below:—

Bakehouses	91.
Ice Cream Shops ...	3*
Fried Fish Shops ...	65.
Markets and Shops ...	220.
Offensive Trades ...	284.
Dairies and Milkshops	261.
Total ...	924.

* Most of these premises are also milkshops and are included under this head.

SALE OF FOOD AND DRUGS ACTS, 1875 to 1899.

During the year 1925, 75 samples were taken under the provisions of the above Acts and forwarded to the Public Analyst for analysis.

Of 43 samples of milk taken during the year nine proved to be below standard.

During the year attention was given to the question of the presence of glass in foodstuffs packed in glass containers. In this connection 14 informal samples were taken and in 10 cases particles of glass were found.

The following is a list of the samples taken during the year and the result of the analysis.

No.	Article taken	Formal or Informal	Result of Analysis	Remarks
1	Milk	Formal	Genuine	
2	„	„	„	
3	„	„	„	
4	„	„	„	
5	„	„	Below standard 18·12% added water	All samples from one source. The producer stopped supplying these retailers before a sample could be procured from him.
6	„	„	Below standard 17·53% added water	
7	„	„	Below standard 23·77% added water	

8	Milk	Formal	Genuine
9	Pine-apple	,,	Tin salts equivalent to ·0015% or ·105 grs per lb. found
10	Milk	Informal	Genuine
11	,,	,,	,,
12	,,	,,	,,
13	Lemonade	,,	Particles of glass found
14	Chicken, ham and Tongue Paste	,,	,,
15	Salmon (potted)	,,	,,
16	Milk	,,	Slightly deficient in Non-fatty solids
17	Lemon Curd	,,	No glass found but salacylic acid present
18	Small Pickles	,,	Salacylic acid present
19	Jam	,,	1 particle glass found
20	Sauce	,,	Particles of glass found
21	Marmalade	,,	No glass found
22	Jam	,,	,,
23	Jam	,,	Particles of glass found
24	Apple Jelly	,,	,, ,,
25	Pickles	,,	Glass found to large extent
26	Sauce	,,	Glass found to large extent
27	Lemocreme	,,	Sample broken
28	New Milk	Formal	Genuine
29	,,	,,	,,
30	Jam	Informal	Particles of glass found
30a	New Milk	Formal	Genuine
31	,,	,,	,,
32	,,	,,	,,
33	Cream	,,	,,
34	Infants' Food	Informal	,,
35	Gripe Water	,,	,,
36	New Milk	Formal	,,
37	,,	,,	,,
38	,,	,,	,,
39	,,	,,	,,
40	,,	,,	,,
40a	Dried Milk	Informal	,,
41	New Milk	Formal	,,
42	,,	,,	,,
43	,,	,,	,,
44	,,	,,	,,
45	,,	,,	,,
46	,,	,,	,,
47	,,	,,	,,
48	,,	,,	,,

49	New Milk	Formal	Genuine	
50	"	"	"	
51	"	"	"	
52	Chocolates	"	"	
53	New Milk	"	"	
54	"	"	"	
55	"	"	"	
56	"	"	"	
57	Dried Pears	Informal	Sulphur dioxide 1485 parts per million found	
58	Dried Apricots	"	Sulphur dioxide 875 parts per million found	
59	New Milk	Formal	Genuine	
60	"	"	"	
61	Prunes	"	"	
62	Preserved Cherries	"	"	
63	New Milk	"	"	
64	"	"	Below standard* 18·24% added water	
65	"	"	Genuine	
66	"	"	"	
67	"	"	Below standard* 16·35% added water	
68	"	"	Below standard* 16·65% added water	
69	"	"	Below standard* 15·30% added water	
70	"	"	Below standard* 15·0% added water	
71	Whiskey	"	41·71 under proof	Vendor warned
72	Rum	"	Genuine	
73	Apple	Informal for Arsenic	No arsenic found	
74	Dried Full Cream Milk	Informal	Genuine	

* All these samples were from the same producer whose farm is outside the Borough. The milk was not brought into the Borough by the producer so a sample could not be procured direct from him, but the case was referred to the County Council whose Inspector took a sample and reported that only five per cent of added water was found.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

INFECTIOUS DISEASES GENERALLY.

Scarlet Fever.—During the past five years a mild form of scarlet fever has been endemic in the Borough. At no time during this period has the area been entirely free from this disease for longer than a week or two. The extremely mild type of Scarlet Fever has doubtless been responsible for a certain number of missed cases which have served to maintain the infection. During 1923 the number of cases increased considerably and this increase reached a maximum in 1924. During 1925 the number of notifications has decreased and this decline became more marked as the year advanced.

It is satisfactory to be able to report that the case mortality has been very low.

Year.	No. of Cases.	Case Mortality.
1921	66	1.5%
1922	30	Nil.
1923	211	0.9%
1924	245	Nil.
1925	165	1.2%

There were two fatal cases of scarlet fever during 1925. One of these was found, a few days after admission, to be suffering from measles in addition to scarlet fever. Septic pneumonia supervened and the child died. The child infected two other children in the same ward with measles.

The second fatal case was also complicated by measles. An intercranial abscess developed and proved fatal. This child infected four other children with measles.

The majority of the cases progressed throughout in a mild form without complications. So mild were many of the cases that one was tempted to reduce the period of detention in hospital but this was not done. Although every possible care was taken to ensure that patients were entirely free from infection on discharge, it has not been possible entirely to prevent return cases. It occasionally happens that after discharge from hospital a child developes nasal discharge which proves infectious to other children.

It is satisfactory to be able to record that the number of return cases was very low. In only three cases could infection be traced to discharged patients and in one of these the evidence was doubtful. This number (3) represents a return case rate of 1.4% of cases of scarlet fever discharged.

Diphtheria.—During the year 45 cases of Diphtheria occurred and there were two deaths. Arrangements have been made whereby local practitioners can obtain diptheria antitoxin free of cost for the use of necessitous cases. A supply of antitoxin is always on hand at the Isolation Hospital and the medical practitioners of the town, at any hour of the day or night, can obtain it from that source. There has been considerable improvement in the early notification and admission to Hospital of cases of Diphtheria, the majority of cases now being notified by the doctors by telephone as soon as discovered.

Chicken-pox.—Owing to the possibility of mild cases of small-pox being mistaken for chicken-pox the latter disease was made notifiable in the Borough in 1923 and has remained so until the present.

All cases of chicken-pox notified from any source are visited and the vaccination history and certain other particulars are obtained. Special attention is paid to non-vaccinated cases and most of these I have personally examined. This procedure has thrown a heavy burden upon the staff of the Health Department but, I feel sure, has been the means of preventing outbreaks of small-pox.

Two cases of mild small-pox were discovered by this means both of which had been notified as chicken-pox. Had these two cases passed unrecognised, small-pox would probably have gained such a footing in the town that its eradication would have been extremely difficult and costly.

During 1925 information was obtained of no less than 635 cases of chicken-pox.

The following table shows the number of cases of each infectious disease notified, the number removed to Hospital, and the number of deaths, for each of the five years 1921-1925.

	1921			1922			1923			1924			1925		
DISEASE	Cases	Removed to Hospital	Deaths	Cases	Removed to Hospital	Deaths	Cases	Removed to Hospital	Deaths	Cases	Removed to Hospital	Deaths	Cases	Removed to Hospital	Deaths
Diphtheria ...	74	62	6	41	30	2	51	46	4	61	54	6	45	45	2
Scarlet Fever ...	66	63	1	30	22	—	211	192	2	245	242	—	165	165	2
Enteric Fever ...	3	3	—	2	2	2	4	1	1	—	—	—	3	2	1
Puerperal Fever	2	—	—	2	—	1	4	—	1	4	—	2	2	—	1
Pneumonia ...	81	—	81	137	—	145	105	—	72	119	—	121	149	—	136
Erysipelas ...	17	—	1	11	—	1	21	—	—	29	—	3	33	—	—
Tuberculosis (Pul.)	120	—	59	90	—	66	80	—	46	87	—	65	81	—	57
,, (Non-Pul)	39	—	22	60	—	24	55	—	26	43	—	21	51	—	26
Smallpox ...	—	—	—	2	2	—	25	23	—	4	4	1	5	5	—
Malaria ...	—	—	—	1	—	—	1	—	2	—	—	—	—	—	—
Encephalitis Leth.	—	—	—	2	—	2	—	—	—	5	—	3	1	—	1
Dysentery ...	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Chickenpox ...	—	—	—	—	—	—	372	—	—	349	—	—	635	—	—

BACTERIOLOGICAL EXAMINATIONS.

In accordance with arrangements made by the Durham County Council with the University of Durham College of Medicine, medical practitioners can have the following bacteriological work done free of cost.

1. Examination of sputum for suspected tubercle bacilli.
2. Examination of swabs for suspected diphtheria bacilli.
3. Examination of blood specimens for possible reaction to typhoid or paratophoid.

The number of specimens sent from the Borough of Stockton-on-Tees and the results of the examinations are shown in the following table:—

Disease Suspected	No. of Specimens submitted	Number Positive	Number Negative	Specimens Contaminated
Diphtheria ...	48 ...	10 ...	37 ...	1
Tuberculosis ...	105 ...	15 ...	90 ...	0
Enteric Fever ...	1 ...	0 ...	1 ...	0
Totals ...	154 ...	25 ...	128 ...	1

The Medical Officer of Health is authorised to submit specimens from patients in the Fever Hospital for bactoriological examination. During the year 1925, 166 swabs from convalescent diphtheria patients were submitted, 129 of which were reported negative and 37 were positive.

FEVER HOSPITAL.

In my report for 1924 I mentioned that during that year the accommodation at the Isolation Hospital had been severly taxed and that overcrowding had on occasions been unavoidable.

During 1925 the pressure on the accommodation has not been excessive but in the event of a severe epidemic difficulties would again occur.

Full and detailed reports have during the past two years been submitted to the Health Committee on this question and careful consideration has to be given to the question of extensions to the accommodation for patients and staff.

Plans have been designed and submitted to the Ministry of Health for an additional ward pavilion, a cubicle block, and for extensions to the administrative block.

These extensions are greatly needed. The extension of the administrative block and the cubicle block are long overdue while the further ward pavilion is needed to ensure that any epidemic may be dealt with satisfactorily.

Investigations as to cost, etc., are still being pursued but definite progress has been made towards the consummation of the scheme.

Detailed improvements have been made in the hospital during the past year. Electric light has been installed throughout and has proved a great improvement on the old system of gas lamps. Stocks of linen and equipment have been brought up to a reasonable standard and various minor improvements have been introduced.

The hot water circulating system in the administrative block is of an antiquated and unsatisfactory type and has given rise to much trouble owing to the blocking of the pipes. At one period this trouble became so acute that it was found necessary to take down most of the pipes and as a consequence the system was completely out of action for some time. Two large gas boilers were installed in the kitchen as a temporary source of hot water for domestic purposes and I desire to express my thanks to Mr. Atley, the Manager of the Gas Works for the prompt manner in which he installed these boilers at a difficult time (a general holiday).

The floors of ward blocks "A" and "E" are of wooden boards three inches broad. These boards have become very rough and uneven and are much splintered in places. Their condition renders it impossible to keep the floors in a really clean condition and there is considerable risk of splinters wounding the hands of the cleaners and the knees and hands of convalescent children. Modern practice in hospitals is to make floors of an impervious composition which can be kept thoroughly and easily clean and the floors of these two wards need replacing by some such material.

Fever Hospital Statistics.—The following table shows the number of cases admitted to the Hospital from the Borough of Stockton and from Districts outside the Borough, during 1925.

Disease	Total	Borough of Stockton	Urban District of Billingham	Rural District of Stockton
Scarlet Fever ...	224	165	53	6
Diphtheria ...	51	45	4	2
Enteric Fever ...	3	2	—	1
Anthrax ...	2	2	—	—
Total	280	214	57	9

Small-pox Hospital.—As reported in my annual report for the year 1924 the question of the provision of more suitable accommodation for cases of small-pox than the existing buildings was under consideration.

It was realised that the most suitable arrangements for the control of this disease would be a central hospital of sufficient size to meet the needs of a fairly wide area, as small hospitals which might stand empty for prolonged periods are uneconomical.

The existing buildings, which comprise a house, which has been adapted for the purpose of an administrative block and two timber and corrugated iron wards on brick foundations, have been in existence for approximately thirty years and as through the course of time, these premises have become dilapidated it was felt necessary to provide more up-to-date facilities for dealing with this disease. Agreements had been entered into between Stockton Corporation and neighbouring Local Authorities for the reception of cases from the areas of such Local

Authorities, in addition to providing for the needs of the Borough of Stockton itself. The outside Authorities were Stockton Rural District Council, Billingham Urban District Council, and the Hartlepool Port Sanitary Authority. The agreement with the Hartlepool Port Sanitary Authority apparently laid upon the Corporation the necessity of admitting cases from Hartlepool County Borough, Hartlepool Borough and Hartlepool Rural District. The total population of these various areas amounted to almost 180,000. An outbreak of small-pox took place at West Hartlepool at the beginning of the year and the hospital was utilised to its full capacity. This drew attention to the limited accommodation and to the possible difficult position in which Stockton might be placed if an outbreak took place within its boundaries whilst the hospital was full, or practically full, principally with cases from outside the Borough. Conferences took place between representatives of the Port Sanitary Authority and Stockton-on-Tees and arrangements made whereby a notice that had been given terminating the agreement with that Authority should be extended to the end of March, the understanding being that some steps would be taken before that time, and that a further meeting might then have to take place between the Authorities as to the then position.

Consideration was given by the Stockton Corporation as to an extension of the existing Hospital, or alternatively, the provision of a new hospital in another situation. Attempts were made to purchase additional land adjoining the small-pox hospital with a view to extending the hospital but these negotiations were unsuccessful.

Correspondence was held with the Durham County Council and with the Ministry of Health, which latter suggested that the Town Clerk should approach neighbouring Local Authorities with a view to providing joint small-pox hospital accommodation rather than extend the existing small-pox hospital exclusively for the use of the Borough.

The Authorities invited to the Conference were:—The Durham County Council, Hartlepool Port Sanitary Authority, West Hartlepool County Borough, Hartlepool Borough, Hartlepool Rural District Council Billingham Urban District Council, Stockton Rural District Council and Stockton-on-Tees Corporation. A joint small-pox Hospital for these Local Authorities would have met the needs of the whole of the South East portion of the County of Durham, and it was felt by the Stockton Corporation that the population of this area constituted a suitable unit for the provision and maintenance of such a hospital.

After somewhat prolonged negotiations the Hartlepool Authorities declined to enter into any joint scheme, preferring to make independent arrangements for the hospital treatment of cases of small-pox. As a result of this it was decided that the existing small-pox hospital should be re-conditioned and details as to the costs and plans are at present in course of preparation. It is regrettable that the opportunity for joint action with regard to small-pox hospital accommodation was passed over, for undoubtedly, some form of joint action would have been to the advantage of the whole district.

In the early part of the year, I reported to the Committee that the provision for disinfection of clothing, etc., at the hospital was not satisfactory and as a result a Thresh Portable Steam Disinfector was purchased from the War Office. This was duly installed and has proved quite satisfactory.

The number of admissions to the Small-pox Hospital during the year 1925 is shown below:—

Stockton Borough	5
Billingham Urban District	8
Hartlepool Port Sanitary Authority	21
Total	34

Pneumonia, etc.—During the year 149 cases of Pneumonia were notified and 136 deaths were registered from this cause. These figures appear to indicate that notification of cases of Pneumonia is incomplete. No cases of Malaria, Dysentery, or Trench Fever, have been notified.

Schick and Dick Tests in Diphtheria and Scarlet Fever.—No use has been made of these tests nor have attempts been made to immunise children against these diseases.

Vaccination.—No vaccinations or re-vaccinations were performed by the Medical Officer of Health during the year.

Anthrax.—In the early part of the year I was asked by a local practitioner to see a case which he suspected might be Anthrax and I confirmed the diagnosis. The patient was a butcher and an examination of the other employees in the business revealed two further cases. These two cases were admitted to the Isolation Hospital and were treated, one by excision of the malignant pustule plus injection of serum and the other by injection of serum only. The original case was treated at home by excision of the pustule and injection of the serum. All three cases recovered. Infection was traced to the carcase of a bullock which was slaughtered and dressed outside the area of this Authority. All three men had handled the carcase.

DISINFECTION.

There is a disinfecting apparatus at the Fever Hospital where all bedding, clothing, etc., removed from infected premises is disinfected by superheated steam. There is also a Thresh Portable steam disinfector at the Small-pox Hospital.

On removal of a patient suffering from infectious disease to Hospital or after recovery or the death of a patient nursed at home, the infected bedding, clothing, etc., is removed for disinfection, and the infected premises are sprayed with formalin spray under the supervision of a sanitary inspector.

284 premises were disinfected during the year. Disinfectants are provided free from home use.

There are no facilities available in the area for the cleansing and disinfection of verminous persons and their belongings.

3.—NOTIFIABLE DISEASES DURING THE YEAR 1925.

DISEASE	CASES NOTIFIED													CASES ADMITTED TO HOSPITAL	DEATHS												
	TOTAL	Under 1 year	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over		TOTAL	Under 1 year	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over
SMALL POX	5	...	...	...	...	...	2	...	...	1	...	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
SCARLET FEVER	165	2	3	8	11	15	63	39	15	8	1	...	...	165	2	...	...	...	...	1	1	...	...	...	...	...	...
DIPHTHERIA	45	...	...	1	7	2	15	13	1	5	1	...	...	45	2	...	...	1	...	...	...	1	...	...	...	...	...
ENTERIC FEVER ... ... (including Paratyphoid	3	...	...	...	...	...	...	...	...	2	...	1	...	2	1	...	...	...	...	...	...	...	...	...	...	1	...
PUERPERAL FEVER... ...	2	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PNEUMONIA	149	8	17	3	4	2	22	10	10	21	17	27	8	...	111	27	19	7	...	1	8	3	1	5	10	17	13
ERYSIPELAS	33	...	...	...	1	...	1	...	1	6	6	11	7	...	3	...	...	...	...	...	...	...	...	...	...	1	2
ENCEPHALITIS LETHARGICA	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
ANTERIO POLIOMYELITIS ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHICKEN-POX	635	31	41	47	37	45	399	25	4	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	1039	41	62	59	60	65	502	87	31	49	27	41	15	217	120	27	20	8	...	2	9	4	1	5	10	19	15

TUBERCULOSIS.

The number of new cases of Tuberculosis notified and the number of deaths from the disease are shown in the following table.—

	New Cases					Deaths				
	Pulmonary		Non-Pulmonary		Total	Pulmonary		Non-Pulmonary		Total
	M	F	M	F		M	F	M	F	
0-1 years ...	1	...	...	1	2	1	...	...	...	1
1-5 ,, ...	4	1	12	9	26	1	...	4	3	8
5-10 ,, ...	7	6	6	7	26	...	3	1	2	6
10-15 ,, ...	3	6	5	3	17	2	1	1	...	4
15-20 ,, ...	3	4	2	0	9	2	5	4	...	11
20-25 ,, ...	6	2	1	1	10	4	2	1	1	8
25-35 ,, ...	4	17	...	1	22	9	4	...	3	16
35-45 ,, ...	5	6	1	..	12	4	8	1	...	13
45-55 ,, ...	...	1	...	...	1	5	3	1	...	9
55-65 ,, ...	3	...	1	1	5	2	...	...	...	2
65 & upwards ...	...	2	..	...	2	...	1	1	...	2
TOTALS	36	45	28	23	132	30	27	14	9	80*

*** 3 more deaths from Tuberculosis are shown on the Registar Generals' return of deaths for the Borough than are shown here. This is probably due to the more complete information which he has with regard to certain deaths.**

The ratio of non-notified tuberculosis deaths to total tuberculosis deaths has expanded from 1 to 7.8 in 1924 to 1 to 11.8 in 1925.

Stockton being a non-county Borough the provision of treatment for tuberculosis is undertaken by the Durham County Council.

It is satisfactory to be able to report that the death-rate from all forms of tuberculosis for 1925 is the lowest ever recorded, i.e. 1.17 per 1000 of population.

The number of deaths from all forms of Tuberculosis and the death-rates for the last 10 years are shown in the following table:—

Year		No. of deaths		Rates per 1000 of population.
1916	...	121	...	1.93
1917	...	129	...	2.26
1918	...	113	...	1.98
1919	...	106	...	1.74
1920	...	94	...	1.48
1921	...	90	...	1.38
1922	...	90	...	1.36
1923	...	79	...	1.18
1924	...	87	...	1.28
1925	...	80	...	1.17

MATERNITY AND CHILD WELFARE.

CHILD WELFARE WORK.

The year 1925 has been one of continued progress in child welfare work. Three of the four Centres are working up to their full capacity and additional sessions are needed to cope with the work.

It is gratifying to be able to report that the mothers in the town appreciate the value of the Child Welfare Centres and place great confidence in the teaching, advice and care which they receive there.

For the past five years the total yearly attendances at the Centres have been:—

1921	...	2981
1922	...	2976
1923	...	2785
1924	...	4172
1925	...	7733

The average annual mortality among infants under 1 year of age during the past five years has been 94.6 per 1000 births, compared with 110.6 for the previous five years.

The average rates for five-year periods have been:—

1896-1900	...	180 per 1000 births.
1901-1905	...	153 per 1000 births.
1906-1910	...	128 per 1000 births.
1911-1915	...	122 per 1000 births.
1916-1920	...	110 per 1000 births.
1921-1925	...	94 per 1000 births.

In my annual report for 1924 I set out in some considerable detail the objects which are sought to be attained by the Maternity and Child Welfare Committee so that it is unnecessary for me to recapitulate these objects.

During the year 1925 considerable strides have been made towards a complete service but much still remains to be done. An additional Centre was opened in the Old School, Norton Green in September to supply the needs of the Norton Ward, and the rapidly increasing population of the town housing scheme on the Blue Hall Estate.

Summary of work at the Child Welfare Centres during the year:—

ATTENDANCES AT CENTRES, 1925.

	Infants and Young Children					
Months	No. 1 Centre	No. 2 Centre	No. 3 Centre	No. 4 Centre	Ante-natal Centre	Totals
January ...	212	203	180	...	20	615
February ...	183	214	173	...	22	592
March ...	187	276	261	...	14	738
April ...	204	166	147	...	11	528
May ...	173	252	199	...	16	640
June ...	202	221	190	...	15	628
July ...	295	261	141	...	23	720
August ...	191	163	180	...	13	547
September ...	230	266	200	62	21	779
October ...	162	220	197	114	20	713
November ...	151	210	215	85	14	675
December ...	142	183	140	74	19	558
Totals	2332	2635	2223	335	208	7733

The average attendance per session at

No. 1 Centre has been	37·1
No. 2 ,, ,, ...	56·0
No. 3 ,, ,, ...	47·3
No. 4 ,, ,, ...	20·9

The average attendance at each session held during the year was ... 43·5

The following table shows the number of attendance at the Child Welfare Centres, month by month, during 1925.

Month	No. of Notified Births	INFANTS						ANTE-NATAL		
		Primary			Repeat					
		Under 1 Yr.	Over 1 Yr.	Total	Under 1 Yr.	Over 1 Yr.	Total	Primary	Repeat	Total
January	139	42	37	79	354	162	516	8	12	20
February	134	67	24	91	335	144	479	13	9	22
March	165	54	29	83	480	161	641	4	10	14
April	154	54	19	73	329	115	444	7	4	11
May	135	60	27	87	385	152	537	6	10	16
June	122	65	34	99	350	164	514	4	11	15
July	130	59	31	90	407	200	607	9	14	23
August	118	48	16	64	328	142	470	4	9	13
September	128	58	35	93	422	243	665	9	12	21
October	108	50	28	78	395	220	615	12	8	20
November	127	39	14	53	367	241	608	6	8	14
December	112	40	22	62	278	199	477	7	12	19
Totals	1572	636	316	952	4430	2143	6573	89	119	208

Centres Nos. 1, 2 and 3 have been working up to the limit of their capacity.

Attendances are, naturally, much influenced by the weather, and on fine days, particularly a fine day following a week or two of wet weather, the Centres have been uncomfortably overcrowded. This overcrowding is harmful in that the amount of individual attention which it is possible to give to each case is curtailed. Unhurried individual attention is the secret of success in child welfare work.

A further disadvantage, also a serious one, is the amount of time which individual mothers must wait for attention. This waiting is a strong deterrent to further attendances and particularly in the case of first visits, gives a bad impression to the mothers, who not only may not return on subsequent dates, but discourage their friends from attending.

I have considered carefully how this congestion can best be met and though I am loth to suggest measures which will increase the burden on the rates, I am convinced that future extension (which is necessary) can only be attained by increasing the medical staff. I am at present giving a large proportion of my time to this work, a larger proportion, in fact, than should be given.

I devote Monday, Tuesday and Wednesday afternoons to Child Welfare Centres and Friday afternoon to the pre-natal Centre. I am in the habit of starting the Centres at 2 p.m. or even earlier, and it is rarely that I leave the Centres until shortly before 5 p.m. This leaves only one afternoon (Thursday) free. When it is remembered that part of each morning is taken up by visiting the Isolation Hospital (sometimes in addition, the Small-pox Hospital) and that there is a considerable amount of routine work to do each morning in the Health Office—answering correspondence, receiving reports from Sanitary Inspectors, Health Visitors, making reports for Committees, etc.—it will be realised that but little time remains for inspectorial work throughout the town and for the preparation of schemes etc. By its nature the work of a Medical Officer of Health is liable to interuptions, for instance, on an average, I see three cases a week of suspected infectious disease at the request of private doctors; I must be constantly available to proceed with one or other of the Sanitary Inspectors to examine carcases of diseased meat, doubtful cases of nuisances, etc. Slaughter-houses, milkshops, cowsheds, housing problems, etc., call me at irregular intervals from routine work, while additional Committee meetings interfere at times. A considerable proportion of my leisure time must be devoted at present to such work as the preparation of reports.

If an Assistant Medical Officer were appointed it would be possible to increase the number of sessions held at the various Centres. At present there is sufficient work to justify Centres Nos. 1, 2 and 3 being opened two days per week and with the completion of the housing scheme at Norton, the Centre at the North-end of the town will be fully occupied. With an Assistant Medical Officer taking centres five afternoons per week it would still be necessary for me to give 3 afternoons to this work. During the morning the Assistant could usefully relieve me of much of the routine work and could give two mornings per week to the School Medical Department the work of which comprises more than can be done by one Medical Officer.

Reference to other sections of this report will show that the economic conditions of many of the mothers is deplorable and it will readily be realised that many of these unfortunate women are dependant upon the Child Welfare Service in order that their infants may thrive. With conditions such as exist in the Borough at present the Maternity and Child Welfare service is a vital necessity to the future generations and every effort possible should be made to expand the service to meet the full needs of the town.

Infantile Mortality Rate during 1925.—The total number of deaths of infants under 1 year of age has been 146 which represents a rate of 92 per 1000 births. Though very considerably below the rate for 1924 (111 per 1000) this figure is much in excess of that pertaining throughout the Country and continued efforts are needed on the lines indicated above to reduce this wastage of infant life.

The rates for each of the last five years have been:—

1921	...	92	
1922	...	103	
1923	...	75	
1924	...	111	
1925	...	92	Average 94.6

The rate for each quarter of the year 1925 was:—

1st quarter	...	96
2nd "	...	85
3rd "	...	97
4th "	...	75

(Uncorrected statistics.)

The monthly rates were as follows (uncorrected figures).

January	...	86
February	...	103
March	...	96
April	...	152
May	...	77
June	...	28
July	...	94
August	...	111
September	...	86
October	...	53
November	...	83
December	...	89

The causes of death of infants under 1 year are shown in the following table:—

INFANT MORTALITY

Nett Deaths from stated causes at various ages under 1 year of age, 1925.

Causes of Death		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 Weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
All causes	Certified	39	8	9	7	63	23	20	14	21	141
	Uncertified ...	3	...	...	...	3	1	...	...	1	5
Measles		...	...	...	...	...	...	...	2	5	7
Whooping Cough		...	...	...	...	...	...	...	...	..	...
Tuberculous Meningitis ...		...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis ...		...	...	...	...	...	...	...	...	...	...
Convulsions		...	...	...	1	1	2	...	1	...	4
Bronchitis		1	2	...	...	3	3	4	1	4	15
Pneumonia (all forms)		...	...	...	1	1	4	7	6	10	28
Diarrhœa		...	...	1	...	1	...	3	1	1	6
Enteritis		...	...	...	...	...	5	2	1	...	8
Gastritis		...	...	...	...	...	...	...	...	...	...
Syphilis		...	...	...	...	...	1	...	...	...	1
Atelectasis		2	...	...	...	2	...	...	...	...	2
Congenital Malformations ...		...	...	...	...	.	...	...	...	...	...
Premature Birth...		14	2	2	1	19	1	...	...	...	20
Atrophy, Debility & Marasmus		19	1	3	3	26	6	2	...	...	34
Infanticide		...	...	...	...	...	...	...	...	...	...
Other Causes		6	3	3	1	13	2	2	2	2	21
		42	8	9	7	66	24	20	14	22	146

Of the 146 infants who died before attaining the first anniversary of their birthday, 66 died within four weeks of birth. These neonatal deaths equal a rate of 35 per 1000 of live births. Of the total infantile mortality, therefore, 41% occurred during the first month of life.

37 of these 66 infants were born prematurely or suffered from congenital debility. A reduction in this figure must be looked for in improved ante-natal care and supervision.

The 1588 infants born were reduced at the end of the first month to 1522 and of this number 686 attended the various Child Welfare Centres. It is unusual for a child to be brought to a Centre till four weeks old or more. 44% of babies over a month were brought to the Centres and among these the death-rate has been 44 per 1000, while among those who have not attended, the mortality has been 66 per 1000.

A further analysis of the attendances reveals the fact that 13 of the babies who died had only been brought once to the Centre, and that such visit was a considerable tims before the death. The death-rate among those babies who attended regularly or fairly regularly was only 26 per 1000.

During the year inquiries have been made by the Health Visitors into each infantile death and of those deaths which make up the figure of 26 per 1000, these inquiries showed that certain contributory causes which were preventable had been in operation. These causes, which included improper feeding and failure to carry out the instructions given at the Centre were noted in 10 cases leaving only 8 deaths among infants who were brought to the Centre regularly and in whom no discoverable errors of diet has occurred. This gave a mortality rate of only 11 per 1000.

When reading over the results of the inquiries into infant deaths the sad fact is apparent that many of these deaths might have been prevented. Again and again the entry occurs "Irregular and unsatisfactory feeding," "Diet unsuitable."

Poverty can no longer be assigned as the only causal factor in the unsuitable feeding of infants and young children for necessitous cases are supplied with wet or dried milk at the Child Welfare Centres according to a scale of income approved by the Town Council, while in the case of older children, after weaning the diet recommended which contains a sufficiency of vitamins is not more costly than that commonly given to the children by parents whose sole source of income is the Unemployment Insurance Benefit, or the usual scale of Poor Law Relief. A satisfactory diet, that is one on which health can be maintained and growth promoted is within the reach of these people but adherence to tradition results in the ingestion of food stuffs which, while satisfactory from the point of view of bulk are woefully deficient in those qualities without which life cannot satisfactorily be maintained.

Education and yet more education of the girls and young women of the population is urgently needed so that the basic principles of food values may become widely known and practiced.

OPHTHALMIA NEONATORUM

Ophthalmia Neonatorum	Cases			Vision un-impaired	Vision impaired	Total Blind-ness	Deaths
	Notified	Treated					
		At Home	In Hospital				
	13	13*	...	10	1 (one eye)	...	1†

* One case left District.

† Cause of death "Debility from Premature Birth."

WET AND DRIED MILK.

The use of dried milk has been continued with satisfactory results. Wet milk would be recommended instead of dried if one were certain that it was clean, free from tubercle bacilli, and that its freshness could be depended upon. Because these factors cannot be assured, the public is using the reliable brands of dried milk in increasing quantities. The keeping qualities and ease of handling of dried milk render it eminently suitable for use in the home, and particularly in those homes where pantry accommodation is unsuitable or insufficient.

The producers and distributors of wet milk are at present losing a large proportion of their natural market for milk, and until they produce milk which is as clean and reliable as the dried milk, the amount lost to them will increase. They have the remedy in their own hands but do not seem eager to apply it.

PROPRIETORY (non milk) INFANTS FOOD.

The Ministry of Health has issued Regulations controlling the composition and labelling of dried milk, but there is nothing to prevent anyone selling as Infants Foods material which contains no milk at all.

In several instances what amounts to practically unadulterated wheat flour is sold as food for infants. The fact that the manufacturers recommend that such preparations should be made up to the required volume with milk does not render them innocuous. Such foods are inimical to the welfare of infants and legislature is needed to control their production and distribution.

PRE-NATAL CENTRE.

This Centre was started in October 1924 and has continued to function during the present year and has made steady but somewhat slow progress.

Public opinion is not sufficiently alive to the desirability of medical supervision during pregnancy though there is evidence that expectant mothers are gradually realising the importance of this branch of preventive medicine. In this connection it is very encouraging to find that the younger mothers form a considerable proportion of those who have attended this course.

Accidents and complications of pregnancy and child birth take a heavy toll on infant life and, in addition, are responsible for much ill health among mothers. Pre-natal care and supervision afford the best means of preventing this wastage of infant life and of a large amount of ill health among women.

That this wastage is a serious one is seen from the following figures:—

Number of still births 32.

Ratio of still births to live births 1 to 51. (1924 1 to 36.7).

Deaths of infants under 1 month 66.

Infant Mortality rate for Infants under 1 month 41 per 1000 births.

This rate, 41 per 1000 births, is higher than for the year 1924, when it was 33 per 1000.

Of the 66 babies who died before completing one month of life, 23 (34%) were known to be premature.

In addition a number of miscarriages occur and though it is not possible to calculate their number it is known to be high.

The chances of survival of a premature infant is less than that of a full-time baby, while miscarriages constitute a prominent cause of prolonged ill-health among women.

The causes of prematurity and of miscarriage are varied and doubtless the interaction of many causes is responsible for this undesirable termination of pregnancy.

Recent dietic experiments on animals point to the importance of vitamin starvation as a factor in the production of these conditions. The significance of these findings is commented upon in the section of this report dealing with Dietetics (p 95 et. seq.).

There is one other factor productive of miscarriage the significance of which cannot be overlooked but of which no **certain** knowledge can be obtained. I refer to the deliberate production of miscarriage by artificial means. Certain drugs which, taken in medicinal doses, are harmless or even beneficial, may, when taken in excess cause miscarriage. From inquiries I have made I am bound to come to the conclusion that such procedure is not uncommon. The dangers attendant upon actions of this nature are very real but are not fully appreciated.

Contraception.—During the year discussion took place in the Maternity and Child Welfare Committee as to the desirability of drawing the attention of the Ministry of Health to the question of allowing information to be given at the Maternity and Child Welfare Centres, if requested, on contraceptive measures. It was decided that no action be taken.

This is a question which is beset with difficulties and is more a matter of ethics and policy than of practical instruction. The factors which influence the birth-rate of a people are general factors—economic, social, etc.—rather than purely personal ones, and it is questionable whether the particularisation of already widespread knowledge upon the subject would materially effect the birth-rate, or even be used by those few women in whom child bearing is attended with danger.

An impression appears to be prevalent that particular knowledge on this subject is the prerogative of those who are able to consult their own doctors and that those who are unable to afford private consultations are debarred from obtaining knowledge on this subject. Even were detailed information available to everyone the use of contraceptives is not unattended by expense.

If it were decided that information on this subject should be available for all, the Child Welfare Centres are not suitable places for the purpose of disseminating such knowledge for the fact that information could be obtained there might deter many women from attending and the excellent position which the Centres hold in the opinion of the public might be damaged.

The Work of the Pre-natal Centre.—The number of names on the register of this Centre amounted during the year to 105 and of these 75 had been delivered up to the 31st of December.

Of the 105 women who sought advice 7 were post-natal cases suffering from various gynaecological conditions. Of the 75 deliveries 70 were normal and 5 instrumental.

The number of still-births was 5.

The work at the Centre demonstrated the need for pre-natal work, for the percentage of abnormalities discovered was high.

In five cases severe albuminuria was present. Of these five one completely cleared up, three were considerably improved and one remained as before.

In 19 cases slight albuminuria was present. Five of these cases attended the Centre regularly and in them the condition was entirely cured. The others were improved.

In 12 cases persistent vomiting was present. In all the condition cleared up after treatment.

In 10 cases dental sepsis was present.

In 8 cases severe varicose veins. Of these, six were supplied with bandages through the generosity of the Voluntary Workers at the Child Welfare Centres.

31 cases were suffering from anaemia. These were supplied with milk and in many great improvement resulted.

There was no maternal mortality.

12 cases were admitted to the Robson Maternity Home.

In those cases where definite gynaecological conditions were found the patients were referred to their own doctors and in each case the doctor was written to and the conditions found detailed.

The following table shows the child bearing history of 99 of the women attending the Centre.

Pregnancy	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	13th
Number attending	9	15	21	16	7	8	5	5	6	3	3	1

The public is gradually realising the importance of pre-natal supervision and to appreciate that many of the abnormalities and accidents of pregnancy and child bearing are avoidable, while a considerable number of the younger mothers is seeking assurance that the progress of each particular pregnancy is normal.

I have made inquiries of the practitioners in the town and I am informed that there is a slow but steady increase in the number of women seeking advice during pregnancy.

This trend of opinion among women is all to the good and may be expected to be accelerated as the benefits of pre-natal care and supervision are more widely realised. It is confidently expected that the work of the pre-natal centre will increase.

A rest home where debilitated and anaemic expectant mothers could be sent for a few weeks rest and holiday would be of great benefit to both mothers and babies. Another great need is dental treatment. Oral sepsis is common and its debilitating effects are serious, but unfortunately the treatment of this condition and the provision of dental plates is expensive.

I had hoped that the Education Committee would have provided a dental service for the school children by now, but this necessary addition to the School Medical Service has been postponed. Had this service been provided I was prepared to recommend that the Maternity and Child Welfare Committee should approach the Education Committee with a view to securing the services of the School Dentist for say, one half-day per week in the interests of the expectant mothers.

Maternal Mortality, 1925.—It is with very great pleasure that I am able to report a substantial decline in the number of maternal deaths due to childbearing. It is to be hoped that this improvement will be maintained.

The number of women dying in consequence of childbirth was:—

(a)	From sepsis	1=0.62	2.5 per 1000 births.
(b)	From other causes	3=2.48	

This figure is less than half that of the previous year, viz., 6.9 per 1000 births.

The cases included under (b) are:—(1) Placenta praevia. (2) Post partum haemorrhage. (3) Eclampsia.

There were, in addition, two deaths in which parturition was stated on the death certificate to be a secondary cause, the primary causes being Influenzal Pneumonia and Pernicious anaemia respectively. If these two cases were included the rate would be 4.34 per 1000 births.

The rate for each of the past six years has been :

1920	(a) From Sepsis ...	3	equals	1·45	4·84 per 1000 births
	(b) From other causes	7	,,	3·39	
1921	(a) From Sepsis ...	2	,,	1·05	5·25 ,, ,,
	(b) From other causes	8	,,	4·20	
1922	(a) From Sepsis ...	5	,,	2·93	7·04 ,, ,,
	(b) From other causes	7	,,	4·11	
1923	(a) From Sepsis ...	3	,,	1·81	6·0 ,, ,,
	(b) From other causes	7	,,	42·0	
1924	(a) From Sepsis ...	2	,,	1·26	6·9 ,, ,,
	(b) From other causes	9	,,	5.60	
1925	(a) From Sepsis ...	1	,,	0·62	2·5 ,, ,,
	(b) From other causes	3	,,	2·48	

The reduction of the maternal mortality rate connected with parturition is dependant upon several factors, the principal of which are:—

(1) Increased ante-natal care and supervision.

(2) Improved midwifery service and institutional provision for difficult and complicated cases and for those mothers whose home surroundings are such as to render confinement at home a source of danger.

(3) The prevention in early childhood of deformities of the pelvis caused by rickets.

In addition to reducing the number of maternal deaths such measures as those set out above will, eventually, greatly simplify many complicated cases of parturition and will also reduce the number of still births and deaths of infants from prematurity, congenital debility, etc.

While considering this question it is interesting to note that 1020 out of 1588 births were notified by midwives and that in 447 cases or 43.8% medical help was called in by them.

ROBSON MATERNITY HOME.

The Robson Maternity Home continued to function satisfactorily during the year and filled a much felt want in the Borough. Care is taken that full use is made of the Home by expectant mothers whose home conditions are such as would render confinement at home unsuitable, and by those in whom difficulties and complications at the confinement are expected.

No person is precluded from taking advantage of the Home by reason of poverty, the amount of fees paid being regulated by the income of the family. The fees ordinarily charged are as under:—

Patients from the Borough 35/- for a period of 12 days (this being the normal duration of stay of cases).

Patients from outside the Borough £4-4-0 for a period of 12 days.

During the year 34 cases were admitted to the Home from outside the Borough:—

Information with regard to the working of the Home during 1925 is given below:—

Information Required	Particulars
(1) Number of cases in the Home on 1st January, 1925	7
(2) Number of cases admitted during 1925	263
(3) Average duration of stay ...	1·9 weeks
(4) No. of cases delivered by:	
(a) Midwives	(a) 206
(b) Doctors	(b) 24
(5) No. of cases in which medical assistance was sought by the midwife, with reasons for requiring assistance:	
(a) Ante-natal	(a) Albuminuria 1 Discharge 1 Cystitis 1 Deformity 1
(b) During labour	(b) Antepartum Haemorrhage 2 Malpresentations ... 4 Prolonged labour ... 12 Postpartum haemorrage 2 Malformation of patient 2 Ruptured perineum ... 10
(c) After labour	(c) Severe Anaemia ... 1 Rise of Temperature ... 2
(d) For Infant	(d) Asphyxia ... ... 2 Feebleness ... ... 3 Deformity ... ... 1 Inflammation of eyes . . 4 Sub-lingual abscess ... 1

(6)	No. of cases notified as pureperal sepsis, with result of treatment in each case	Nil.		
(7)	No. of cases in which temperature rose above 100·4 for 24 hours with rise of pulse rate	2		
(8)	No. of cases of pemphigus neonatorum	Nil.		
(9)	No. of cases notified as ophthalmia neonatorum, with result of treatment in each case	1.	Cured	
(10)	No. of cases of "inflamation of the eyes," however slight	4		
(11)	No. of infants not entirely breastfed while in the Institution, with reasons why they were not breastfed	7.	Child to be adopted ...	1
			Condition of mother ...	2
			Insufficiency of milk ...	4
(12)	No. of maternal deaths with causes	1.	Complete placenta praevia	
(13)	No. of foetal deaths (a) stillborn, and (b) within 10 days of birth and their causes, and the results of the post mortem examination if obtainable	13.	(a)	6
			(b) Prematurity ...	3
			Acute jaundice ...	1
			Alelectasis ...	2
			Deformity	1

Children's Hospital.—The great need which exists in the town for a Hospital for Ailing Infants and Young Children has long been recognised and at various times in the past efforts have been made to start an institution of this nature

The health and welfare of the community are dependant upon two factors—the prevention of disease and the actual care of morbid conditions. These two factors cannot be seperated entirely, though on broad lines they are dealt with by two seperate organisations. The private medical practitioner and the voluntary hospitals are concerned primarily with the cure of disease, while the State and Local Authorities, aided to a certain extent from private sources, are responsible for the prevention of disease.

The onset of disease is in many cases, insidious, and is due not so much to the actual presence in the individual body of diseased tissues, but to errors of feeding, environment and nurture. The Maternity and Child Welfare Services of Local Authorities are so adapted as to take cognisance of these beginnings of disease and a valuable part of the function of this organisation is to treat and correct such conditions.

The vast majority of babies are born healthy, yet in the first twelve months the number who die is very great. During 1924, eleven per cent of the babies born in Stockton died before reaching the anniversary of their birth. A general hospital, even if generously equipped with children's beds, can only admit for treatment of infants and very young children who are suffering from acute diseases. There remains a large number of ailing children who are unsuited for admission to a general hospital—children who will die if treatment is delayed until the acute stage of a disease is reached.

Many of these ailing children are dealt with at the various Child Welfare Centres, where advice and teaching are constantly being given to mothers as to the care and nurture of their babies. But there remains a group of children who, through environmental difficulties, through poverty, ill feeding, etc., lose ground and by reason of lowered resistance die if subjected to comparatively slight intercurrent disorders. Such children are unsuitable for admission to a general hospital though in urgent need of careful and skilled nursing and treatment in an institution. Such children as these can best be treated in a Hospital for Ailing Infants.

During 1924, 176 children died in Stockton before they attained one year of age. Many of these lives might have been saved by treatment in a Hospital for Ailing Infants.

A consideration of some of the causes of death of these young children will be of value.

Thus, six babies died of convulsions. Five of these deaths occurred in infants of over a month, and one in a baby a few days old. Convulsions occurring in older infants are usually due to bad feeding and lack of care during teething. Some of these five lives might have been saved by treatment in hospital.

Fifty-nine babies under one year died of bronchitis or pneumonia. Environment plays a large part in this high figure. It is impossible to nurse and care for a baby suffering from bronchitis or pneumonia as it should be nursed, if the only available place in which the baby can be looked after is a kitchen or room in which the ordinary domestic activities have to be carried out. I have seen babies and young children dying of pneumonia in a cradle or cot set between a large fire and a door, frequently opened, which communicates directly with the street.

Twenty-two children under two years of age died of diarrhoea. The life of a young child affected with acute diarrhoea is almost entirely dependant upon the quality of the nursing attention it receives. It is almost impossible for the untrained mothers to properly care for such cases.

Fifty babies died from premature birth or conditions associated with congenital debility. The reduction of these figures can be brought about by two means: (1) the care in an institution of the babies suffering from congenital debility, and (2) the care of the mother before the birth of the child. It should be possible to admit the nursing mother of a congenitally weak baby into an institution or hospital so that the infant might be properly cared for and might yet retain the advantage of natural means of feeding. The establishment of breast feeding is in some cases impossible unless the mother is removed from the harassing conditions of an overcrowded house.

Apart from the actual saving of life an infants hospital would prevent minor illnesses from becoming serious, it could build up the resistance of weakly babies and would cure many conditions, which, if left untreated, would seriously diminish the efficiency in later years of the individual.

Type of Building, etc.—I have made inquiries as to the type of hospital in use for such purposes in various parts of the country. The concensus of opinion appears to be that the building of an entirely new hospital is usually so expensive as to be prohibitive. Good results are obtained by the adaptation of a large house.

The essentials are:—The house should be large enough to house the whole of the staff and say 20 cots for children. It is essential that a certain amount of ground be available and it is highly desirable that an open-air ward or shed to take the majority of the cases should be built.

DIETETICS.

The nature, quality and quantity of the food supply of a community necessarily exerts a profound influence on the health and stamina of the individuals comprising that community.

Until comparatively recent times it was generally accepted that if a diet contained the necessary proportions of proteins, carbohydrates and fats, it mattered little in what form these constituents were present, but recent research work has shown that certain other factors enter into the suitability or otherwise of any particular food stuff. These accessary factors in the diet are known as 'Vitamins'. Vitamins constitute but a minute fraction of the total constituents of food but their importance is great. These substances are necessary for the processes of growth and for the maintenance of health, but it is unfortunate that they are comparatively easily destroyed by the processes of preservation and in some cases by the preparation of food for the table.

Vitamin deficiency is probably the major factor in the production of rickets in infants and children and of many forms of debility and anaemia in adults. Rickets is a disease which produces in children widespread changes which are not confined to the bony system, but involves serious damage to many other parts of the body. While it is popularly known that such deformities as bow legs and knock knees are the results of rickets, it is not generally realised that these phenomena are merely one series of manifestations produced by the disease. Anaemia, loss of muscular tone, stunted growth, a great tendency to catarrh and bronchitis, a tendency to diarrhoea, pseudo-tabes mesenterica, dental decay and enlarged tonsils and adenoids are associated with the rachitic state, while in adults anaemia, debility and many cases of chronic constipation and intestinal stasis are attributable to the same cause.

These conditions are responsible for a very great deal of the debility and physical inefficiency which was demonstrated to be present among the manhood of the nation during the war.

These conditions lower the efficiency of our population in their peace time pursuits and reduce the capacity of the individuals so affected to maintain themselves and their dependants on an adequate basis of material prosperity.

In addition these conditions are directly responsible for much of our infantile mortality and also reduce the power of resisting disease, (e.g. pneumonia, measles, whooping cough, etc.), so that attacks of illness prove fatal which otherwise might be successfully combated. In this way the indirect effect upon the mortality tables is important.

The factors which produce this state of affairs are alterable, and the subject of dietetics is one which claims attention not only from those whose duty it is to safeguard the health of the people, but from the Government and the mass of the people themselves.

The advance of civilization and the consequent expansion of industrial enterprises has made it possible for the number of people to live in this country which is greatly in excess of that which can be supported by foodstuffs grown within the country. As a natural consequence it has been necessary to import ever increasing quantities of foodstuffs from overseas to make up the shortage of home produced foodstuffs. The liability of many foodstuffs to deteriorate during the time required for transport has had two main results, (a) a tendency to treat goods by chemical or thermal means to prevent or delay such changes, and (b) to popularize foodstuffs which, per se, are but slightly liable to putrefactive changes through the lapse of time. The effects of these commercial activities have largely altered our food supplies. The quantity of cereal foods has increased and there has been a diminution in the quantity of fresh, natural, unaltered foods available per capita. The result of these changes have been that the vitamin content of the food supplies of the nation as a whole has been reduced to a level which is incompatable with the full vigour of life. The production of increased quantities of fresh, home-grown food, rich in vitamins which will counterbalance the shortage of these necessary substances in much of the imported foods is a national necessity.

The fact that our production of foodstuffs must necessarily fall short of the needs of the population renders it important that the vitamin balance of the National diet should be maintained by leavening the mass of foods having a low vitamin content with those containing a high percentage, which can be grown and produced in this country and which can reach the public in a fresh condition. Further information on this subject will be found in the Section of this Report dealing with Child Welfare.

Some time ago I had the privilege of working with Dr. MacIntosh of the Durham County Council Staff when he was investigating rickets among school children and as a result I realised the enormous importance and widespread nature of this disease. Consequently I have paid considerable attention to the rachitic phenomena and to the prevention and cure of this complaint. As no artificial sunlight equipment is available and no institution exists here where cases of rickets can be admitted, attention has been concentrated upon diet.

In an industrial area such as this where the burden of unemployment is very heavy, the quality of the food consumed by many leaves much to be desired. Tea, sugar, white bread, margarine, potatoes and occasionally a little meat constitute the staple diet of many members of the population. Nursing mothers on such a diet present a characteristic anaemic appearance and their breast fed babies are also anaemic and show other signs and symptoms of rickets—head sweating, catarrh of intestinal tract and a great liability to sub-acute bronchitis. In bad cases of this type the mothers are allowed a pint of milk a day but excellent results, even better than those obtained by giving milk alone, are observed if the mother can be persuaded to change her almost vitamin free diet to one containing a sufficiency of these principles. Care is taken that the diet advised shall cost but little more than she has been in the habit of spending. If whole meal bread and beef dripping are substituted for the white bread and margarine the mother's anaemia is greatly lessened and the baby's condition rapidly improves. The baby becomes contented, sleeps all night, the head sweating ceases, and in place of the pallor of anaemia a healthy colour develops. Increase of weight is also accelerated. The mother is encouraged to take fresh green vegetables and fruit. There is locally a great aversion to the consumption of green vegetables during lactation, but I have found only benefit result to the baby from this addition to the diet. Occasionally the baby's motions become green but without diarrhoea. These green motions do no harm and the baby continues to thrive.

Weaning.—It is very common to see babies who have done well on the breast up to the 6th or 7th month go back and become anaemic from this age. Inquiry will always, in these cases, elicit the fact that white bread, some patent starch-containing food, arrowroot, cornflour, oatmeal or other cereal has been given. The signs of mischief are head sweating, enlargement of abdomen, intestinal catarrh, bronchial catarrh, and in later cases beading of ribs and enlargement of radial epiphyses together with general flabbiness, crossness and peevishness, and delayed detention.

Weaning is carried out at the Centres as follows:—At 8 or 9 months, or even earlier if the baby is not thriving, the baby is given extra food. Such food consists of brown bread, butter or beef dripping, soup or stew with vegetables, meat juice, half a raw egg in milk and fruit juice. When fruit is unobtainable raw turnip juice is recommended. At nine months a very little potato is allowed. White bread, rice, sago, arrowroot, tapioca, biscuits, cornflour, oatmeal and all similar foods are absolutely forbidden. In some cases cod liver oil emulsion is given (particularly those with a tendency to bronchial catarrh). The results are very satisfactory. The mothers are unanimous that with such a diet weaning causes no trouble. No vomiting or diarrhoea is caused and the frequently seen decrease in the weight curve at this age is eliminated. Babies usually walk before 12 months of age on this diet and dentition is free from trouble.

In those cases in which weaning has been carried out by giving starchy foods the baby is usually flabby and anaemic and head sweating is common. A change to the diet recommended (usually with a little cod liver oil emulsion) is followed by rapid improvement. The head sweating ceases in a week or ten days and the general condition rapidly improves.

Many children are brought to the Centres for the first time between the ages of 14 months and 2 years who have been fed on a starchy diet since weaning. The condition of these toddlers is typical. They are anaemic, flabby, cross and peevish, with marked head sweating, big bellies, eversion of lower ribs, beading of ribs, outward bending of tibia, and in those children who have walked, varying degrees of bow legs. Many have a distinct tendency to bronchitis. In some all these signs are present, in others only some of them.

The improvement which follows a change of diet to that recommended for weaning with complete prohibition of starchy foods except whole meal bread and some potatoes is usually rapid. The head sweating ceases, the anaemia is replaced by a healthy colour, the muscular tone rises and the child quickly gains weight. It is no unusual thing for a child of eighteen months who has never walked to walk quite well in three weeks.

The enlarged abdomen subsides and the radial epiphyses gradually decrease in size. The most spectacular result is the improvement in the bow legs. Outward curvature of the tibia and knock knees respond much more slowly. The tendency to bronchial trouble is much diminished. No additional treatment such as massage, confinement to bed, splints, etc., is available.

The following are details of actual cases:—

Girl age 3 years.	Bow legs 3 inches ; knees touching in 7 months.
„ 2 „	Much underweight ; gained 4 lbs. 12 ozs. in 8 weeks ; anæmia and pot belly cured,
„ 1½ „	Gained 3 lbs. 2 ozs. in 10 weeks.
Boy age 2 years.	Gained 3 lbs. 4 ozs. in 15 weeks ; walked at one year but did not walk from 18 months to 2 years. Walked again within 3 weeks of attending Centre at 2 years of age. Had knock knees when first attended. Legs straight in 15 weeks.

Boy age 2½ years	3 inches bow legs ; gained 2 lbs 12 ozs. in 5 months. Enlarged abdomen reduced to normal. Bow legs much reduced.
,, 3¾ ,,	2½ inches bow legs ; gained 1 lb. 15 oz. in 4 months. abdomen reduced to normal. Bow legs much reduced.
,, 2 ,,	2½ inches bow legs. Legs straight in 2 months. This child was admitted to the Isolation Hospital suffering from Scarlet Fever a few days after first time seen at Centre by me. In this way he gained the advantage of 3 weeks rest in bed.
,, 2 ,,	Gained 5 lbs. in 1 year. Anæmic, large abdomen, radial epiphyses enlarged. Not walking at 2 years. Walked at 2 years 1 month. Abdomen reduced to normal, anæmia cured, radial epiphyses reduced.
Boy age 1 yr. 8 mths.	Bow legs ¾ inches. Practically straight in 5 weeks.
,, ,,	Gained 3 lbs. in 6 weeks. Enlarged abdomen reduced.
,, 3¼ years	Had never walked. Walked within 6 weeks but mother ceased to attend and child has relapsed. Knock knees
Girl age 2¼ years	Gained 2 lbs. 14 ozs. in 6 weeks.
Boy age 1½ years	Gained 4 lbs. 10 ozs. in 6 weeks, General conditions greatly improved.
Girl age 4½ years	? Tabes mesenterica. Gained 6 lbs. 13 ozs. in 8 months. Abdomen reduced to normal.
Boy age 2 years	Not walking. Enlarged wrists ; big belly. Bow legs 1 inch. Anæmia ; dental decay. Walked in 6 week. Legs practically straight in 8 weeks ; straight in 6 months. Gained 4 lbs. 14 ozs. in 6 months.
Boy age 2 years	Not walking. Big belly. Slight bow legs. Dental decay Walked in 2 weeks. Gained 4 lbs. 14 ozs. in 8½ months Anæmia cured. Abdomen normal. Legs straight.

If mothers will carry out the instructions the improvement both in the general condition and in the various rachitic phenomena is very great.

It is unfortunate that no institution exists at present where such cases can be treated but it is hoped that a hospital for ailing infants and young children will shortly be started.

Mothers are unanimous in their opinion as to the great benefit the children derive from this diet. It is no uncommon thing for them to volunteer the statement that "the child is a different creature" or "is no trouble now and sleeps all night."

Similar results might possibly be obtained by treatment by artificial sunlight, but the disadvantage of treatment by this means is that the cause of the trouble is not removed and on cessation of the course of treatment a relapse may follow. On the other hand treatment by dietetic means has the advantage that in addition to curing the abnormal condition it assures that the factors which produced them are altered and the parent is able to continue so to care for the child as to prevent a recurrence of similar troubles.

APPENDIX.

Birth-rate, Death-rate, and Analysis of Mortality during the year 1925.

(Provisional figures. The rates for England and Wales and Stockton have been calculated on a population estimated to the middle of 1925, while those for the towns have been calculated on populations estimated to the middle of 1924. The Mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London, and the groups of towns.)

	Birth Rate Per 1000 Total Population	Annual Death-rate per 1,000 Population									Rate per 1000 Births		Percentage of Total Deaths		
		All Causes	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhœa and Enteritis (under 2 years)	Total Deaths under 1 year	Causes of Death Certified by Registered Medical Practitioners	Inquest Cases	Uncertified Causes of Death
England and Wales	18·3	12·2	0·01	0·00	0·13	0·03	0·15	0·07	0·32	0·47	8·4	75	92·1	6·9	1·0
105 County Boroughs and Great Towns including London ...	18·8	12·2	0·01	0·00	0·17	0·03	0·18	0·09	0·30	0·43	10·8	79	92·1	7·3	0·6
157 Smaller Towns (1921 Adjusted populations 20,000 - 50,000) ...	18·3	11·2	0·01	0·00	0·15	0·02	0·14	0·06	0·31	0.38	7·6	74	93·0	5·9	1·1
London	18·0	11·7	0·01	0·00	0·08	0·02	0·19	0·11	0·23	0·46	10·6	67	91·1	8·9	0·0
Stockton-on-Tees	23·3	14·38	0·01	0·00	0·54	0·02	0·02	0·02	0·94	0·47	12·5	92	92·8	3·9	3·3

CAUSES OF DEATH IN STOCKTON-ON-TEES, 1925.

CAUSES OF DEATH	Total	M	F
ALL CAUSES	978	528	450
1. Enteric Fever	1	1	...
2. Small Pox	...	...	...
3. Measles	37	22	15
4. Scarlet Fever	2	1	1
5. Whooping Cough	2	...	2
6. Diphtheria	2	1	1
7. Influenza	64	40	24
8. Encephalitis lethargica	1	...	1
9. Meningococcal meningitis	...	...	...
10. Tuberculous of respiratory system	57	31	26
11. Other Tuberculous Diseases	26	16	10
12. Cancer, malignant disease	66	29	37
13. Rheumatic Fever	3	...	3
14. Diabetes	4	...	4
15. Cerebral hæmorrhage, &c.	50	22	28
16. Heart Disease	118	69	49
17. Arterio-sclerosis	20	15	5
18. Bronchitis	69	30	39
19. Pneumonia (all forms)	136	76	60
20. Other Respiratoy Diseases	10	6	4
21. Ulcer of Stomach or Duodenum	1	1	...
22. Diarrhœa, &c. (under 2 years).	20	11	9
23. Appendicitis and Typhlitis	5	3	2
24. Cirrhosis of Liver	3	2	1
25. Acute and chronic nephritis	22	8	14
26. Puerperal sepsis	1	...	1
27. Other accidents and diseases of pregnancy and parturition	3	...	3
28. Congenital Debility and malformation, premature birth	58	34	24
29 Suicide	3	1	2
30 Other deaths from violence	29	24	5
31 Other Defined Diseases	158	80	78
32 Causes ill-defined or unknown	7	5	2
Deaths of Infants under 1 year—			
Total	146	86	60
Illegitimate	6	4	2
Total Births	1588	800	788
Legitimate	1529	776	753
Illegitimate	59	24	35
Population	68,000		

In the following Table the Birth and Death rates, and the Death rate from different diseases are shown for the three 5 year periods—1911-1915, 1916-1920, 1921-1925.

Year	Population for Births	Population for Deaths	Births		Deaths under 1 year		Diarrhoea		Deaths all ages		Tuberculosis		Phthisis		Respiratory Diseases	
			No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1911	52175	52175	1536	29·4	206	132	65	1·24	872	16·6	104	1·99	59	1·10	173	3·30
1912	52244	52244	1602	30·6	147	91	18	0·32	815	15·6	104	1·99	40	1·22	128	2·52
1913	52316	52316	1645	31·4	233	141	33	0·63	954	18·1	123	2·30	86	1·60	199	3·80
1914	59311	59311	1814	30·56	221	121	45	0.75	1052	17·70	126	2·11	81	1·36	193	3·25
1915	59311	59311	1672	28·19	214	127	44	0·74	1065	17·95	105	1·77	67	1·12	213	3·59
Average for 5 yrs	55071	55071	1653	30·03	204	122	41	0.73	951	17·19	112	2·03	66·5	1·28	181	3·29
1916	62285	57247	1480	23·70	159	107	12	0·20	947	16·54	111	1·93	80	1·39	189	3·29
1917	63592	57048	1335	20·99	174	130	38	0·66	1085	19·01	129	2·26	82	1·44	207	3·62
1918	63931	57057	1471	23·07	154	104	43	0·75	1214	21·27	113	1·98	86	1·50	239	4·18
1919	63226	60696	1537	24·19	161	104	28	0·46	1007	16·59	106	1·74	69	1·13	195	3·22
1920	63114	63114	2105	33·35	229	108	46	0·72	984	15·59	94	1·48	68	1·07	271	4·29
Average for 5 yrs	63229	59032	1587	25·06	175	110	33	0·55	1047	17·80	110	1·87	77	1·30	220	3·72
1921	65000	65000	1898	29·20	175	92	35	0·53	841	12·93	90	1·38	64	0·98	171	2·63
1922	65950	65950	1702	25·80	176	103	24	0·34	1019	15·43	90	1·36	64	0·97	253	3·83
1923	66610	66610	1663	24·96	126	75	16	0·24	797	11·96	79	1·18	54	0·81	131	1·96
1924	67620	67620	1579	23·35	176	111	22	0·32	982	14·52	87	1·28	65	0·96	253	3·74
1925	68000	68000	1588	23·33	146	92	20	0·29	978	14·38	57	0·83	26	0·38	215	3·16
Average for 5 yrs	66636	66636	1686	25·32	159	94	23	0·34	923	13·84	80	1·20	54	0·82	204	3·06